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CRANIAL INJURIES, WITH REPORT OF CASES.*

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Mr. President and Gentlemen: In the lottery of location in medical life, it has occurred that many of us are very unfortunate in that we must fight, single handed, many of the battles for the lives of the still more unfortunate victims that come under our surgical care.

Living, as many of us do, at some distance from the larger towns and cities in which are to be found the best hospital advantages and the best equipped surgeons, both mentally and instrumentally, we can ill afford even a trained nurse or an experienced anaesthetist. So we must, without the aid of consultation or advice, decide some of the most perplexing questions that can possibly arise in a surgical practice.

Of all emergency surgical cases which occur in a general practice, those involving some injury to the human skull most often claim our attention. Cranial injuries, then, is a subject of great importance to all of us and it is one that should appeal very forceably to every country doctor for his most careful consideration and his most painstaking investigation.

I regret, gentlemen, that this paper, which is confessedly unscientific and without instruction in anything new or old, must appear somewhat in the form of a criticism. So I must in the outset beg the pardon of all who may feel that they might "wear with comfort" the cap

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that is being thrust upon them. And to prevent a sudden rise in (temperature) about the facial expression of any brother present, I shall use largely in this connection the pronouns "We," "Us" and "Ours," instead of "You" and "Yours."

It has been my good fortune to meet with some country doctors who are really up-to-date, good surgeons. They, having the energy and perseverance, make—or take, if need be—the time to keep themselves posted on surgical progress and are always ready to take hold of, and to manage, intelligently and successfully, the most intricate traumatic conditions of the human skull. It is quite comforting, Mr. President, to know that there are a few of such men and in this paper I would make a special plea for a more general and special equipment of the country doctor for the management of cases of head injury. I shall not feel that I have labored in vain, if by this effort I may arouse some interest in this important subject, thereby improving or increasing the chances for the recovery of some unfortunate individual who may receive an injury to his cranium.

For while it is true that some general practitioners are doing good surgery and are meeting with brilliant success in these emergency cases, there are many who have shown an utter indifference to even minor surgical details; and I feel justified in saying that fifty per cent. of "Us" country doctors are appallingly ignorant of the symptoms and conditions that would enable us to differentiate with some precision and correctness our cases of concussion and depression.

Many of our best physicians, men of fair ability, doing some of the large and lucrative practices, have shown a great lack of familiarity with such details as would enable them to diagnose and treat successfully any case of head injury that might require surgical interference.

Of course, we can explain in a measure this lack of familiarity by the fact that, as general practitioners, we very rarely meet with any difficult and dangerous cases, and in consequence, we but seldom have occasion to refresh our minds with such surgical ideas as were taught us in college, or to add anything further to our knowledge of these conditions. But says the "narrow minded surgical specialist," (there are none of that Kind, Mr. President, who attend our meetings,) that, as general practitioners, we have no right to interfere surgically with this class of cases. And until many of us are better prepared for the successful management of them, I must admit that we have no such right. And while my first proposition is, that whenever we can do it without too much increase of danger to our patient by the prolonging delay, we should remove him to some well equipped hospital or call to our aid some surgeon of skill and experience; I say that there need not longer exist any necessity for transporting our cases of head in-

jury all about over the country, looking for a man with brains and energy enough to have qualified himself to do the work which we ought to be able to do; and last, but not least, to pocket the fees that many of us need with which to feed and clothe the wives and children who are so terribly afflicted as to be called ours.

I would not appear in the role of opposition to that liberal patronage that is given to our specialists in surgery who have so generously devoted their time and spent their money in an effort to more thoroughly prepare themselves and equip their institutions for the more scientific and successful management of difficult and dangerous surgical conditions. They are worthy of patronage, and, whenever it is practicable, the individual who has received an injury to his cranium should either be transported to them, or have some one of their number called to his assistance. But I would have you remember gentlemen, that many of these head injuries are of too severe a nature to admit of moving; and sometimes the injury is so extensive or the compression is so great, that would mean death to our patient. The means of transportation may be too rude or the distance may be too great to await for aid from other places and something must be done and it must be done quickly.

Just here we find ourselves up against a proposition of diagnosis, which, to many of us, is the most formidable barrier to our success as surgeons. In as much as the successful treatment of all head injuries depends so largely upon a correct diagnosis, I deem it advisable to call attention to the importance of "carrying always in your mind the principle diagnostic points."

In this day of activity and progress it will not do to say, "Bill Jones struck John Smith with an axe, a handspike, a gun barrell or a base-ball bat, and broke his head and I trephined; or I thought his case too bad and just waited, yes, I really could not tell at first how badly he was hurt, so I just waited until the undertaker pocketed what should have been my fee and the family mourned the loss of a promising young man. Have any of you known of such an instance? Is there one such fatal result chargeable to the ignorance of anybody present? I hope not. We must be familiar with the symptoms of concussion and compression. We must be able to say, with some degree of precision and correctness, that the man has a comminuted fracture with or without depression of bone; or a simple fracture with depression of the inner table; or, perhaps, it is only concussion or a clot has formed which will soon kill our patient, without the intelligent use of the knife and the trephine. It may be easy enough to do the work if we could only determine what to do. We must be able to decide by summing up the symptoms, both subjective and objective, together

with a careful recounting (whenever it is obtainable) of the history of the occasion, especially of the kind and character of the weapon, missile or body used to inflict the injury upon our patient.

And what is more important, we must have a clear idea of the location of special centers in order to decide which, if any of them, have been injured or are being pressed upon. And just here, gentlemen, let me insist that entirely too little is known about shock, its cause and its probable duration under certain conditions.

More particularly should we study this symptom and its bearing upon the case before us when the patient is under the influence of alcoholic stimulants at the time he was injured. The amount of injury, or probable injury, which has been done to the underlying brain tissue, is a great factor in making up the diagnosis, in mapping out the treatment, and especially should it be considered before giving a prognosis of these cases of cranial injury. In cases where you have an injury to the brain, do not forget the great change which has in the quarter of a century taken place in the minds of medical men regarding the tolerance of the brain to traumatic injury and to surgical interference. We no longer look upon the human skull as that sanctuary not to be invaded. Our experience in the vast number of injuries to the brain which have occurred either by accident or during recent wars, has taught us that surgical procedures could not be more dangerous nor injurious than accidental ones. And the case reported by Bigelow of Boston, in which an iron drill an inch in diameter was driven through a man's cerebrum from below upwards and produced only temporary delusions, while for twelve years he followed his ordinary avocations; and that of the famous Dr. Robert Fielding, who was shot with an iron musket ball an inch in diameter, through the temporal bone, and it having passed entirely across the floor of the cranium was discharged thirty years later from an abscess near the angle of the left lower jaw; together with other cases which I might mention, would indicate that the brain will tolerate a wonderful amount of disturbance of its continuity by foreign bodies, especially when there are openings such as abscess, fistulae or other avenues for the exits of fluids that may accumulate along the track of the injury. If the respiratory centers are not pressed upon, nor the carotids opened, a large per cent if these cases will recover even where extensive injury has been done to the brain.

From a careful study of the history of these extreme cases, and from experience with a few cases which seemed hopeless, I am encouraged to attempt to do something for even the most desperate cases unless the patient is *inarticulo-mortis*. I cannot pass from this point without reference to that class of cases which, in *contra distinction* to those

which I have just mentioned, is of more frequent occurrence and which come under the observation of nearly every physician, where the injury seems so trivial that no attendant is called. They are from blows on the head which may or may not produce fracture or displacement of bone, but which may be, in a few hours or later, followed by a sleep which is to the laity so deceptive, that while the family or friends think he is sleeping so nicely, he has already passed into a stupor from which he may never awake; or he may after a time be aroused, only to become an epileptic for life. Especially is this likely when the patient is young. They sometimes awake from a temporary unconsciousness and pass into convulsions, which are speedily followed by death.

Beware, gentlemen, even when the injury seems very slight, of giving too much assurance that no special harm has been done the child. As intimated before, the diagnosis of these injuries, is the most difficult problem, because of the fact that none of the symptoms of pressure are entirely reliable during the first few hours after the receipt of injury, for the reason that any violence sufficient to produce a fracture, is also likely to produce symptoms of concussion, which might be easily mistaken as strong evidence of compression. Of course, it is easy to diagnose a case in which there is an open scalp wound; for if the opening in the scalp be not sufficiently extensive, we should enlarge it and make such an examination of the skull as would render the diagnosis positive. Bleeding from the ears is a practically sure indication of fracture of the base of the skull, but it is not always present in such cases, since there could be such a hemorrhage only when the line of fracture passed through the petrous portion of the temporal bone. Swelling of the vault of the pharynx and the loss of the sense of smell or vision are points to be noticed; but the two latter, obviously, cannot always be helpful to us. In compression we have paralysis, which is usually unilateral; but it may be observed bilaterally when there is a very large clot which covers the motor centers of both sides. This paralysis, like the stupor, is more prolonged in compression than in concussion.

The movement of the muscles of the face will be present or absent alike on both sides in concussion, as will also the contraction or dilatation of the pupils; while in compression, both of these symptoms may appear to a greater or less degree on both sides, though they are usually found only on one side. Stupor is usually much more profound and more prolonged in compression; and while in concussion it may be very marked, yet we can usually arouse our patient to a state of semi-consciousness, which can rarely be done in cases of compression. I remember one case, in particular, in which there was a very large

clot with an extensive fracture, in which the patient at almost any moment of the twenty-four hours of waiting before operation could be induced to answer questions. His answers were not always rational but they were sufficiently clear to warrant the delay of a few hours before using the trephine. In compression; we see the facial muscles draw the mouth to one side and we have that familiar puffing and blowing sound produced by the buccinator muscle during respiration. We observe that the pupils are evenly contracted or dilated, in concussion and vomiting, which is a most common symptom of this condition, is rarely seen in compression. But do not be deceived upon this point, for in extensive injuries, where we have fracture with depression or large blood clots, we may have a bilateral array of the symptoms denoting compression. History of all cases of cranial injury should be carefully considered when it can be reliably obtained. Many points of interest may thus be noted, such as the character and the shape of the instrument used; the direction from whence it came, the position of the patient when he was struck and with what force he probably came in contact with the injuring object. All of these points are helpful, but the most unfailing and positive sign in doubtful cases is that of convulsions. Convulsions may not continue a great while, but if the patient falls in a convulsion immediately after receiving the blow; or if they should occur within a few hours, I am sure that pressure exists in a marked degree. Barring the previous history of any convulsion seizures, we should not hesitate in diagnosis, even when other symptoms denoting compression are not well defined.

The prognosis in all cases of head injury should be given very cautiously since the most trivial fracture may in so many ways lead to a fatal termination; and, on the other hand, many of those cases which seem altogether beyond the aid of surgical intervention are very quickly and completely relieved by it. In fact, the prognosis depends more largely upon what centers are being pressed upon and with what promptness the pressure is removed, than upon any particular method of removing it; supposing everything to be done with due regard to asepsis and antisepsis. Practically all writers upon this subject agree that treatment should consist of removing the pressure quickly and in doing this we must not lose our presence of mind; but remember that every act of the surgeon should be characterized by coolness and conservatism.

I may have given too much time to what might seem too commonplace to merit your consideration just here, but I would impress upon you, that the observance or non-observance of all these points, often determines the method of treatment and perhaps the fate of the patient. The main object of treatment is relief of pressure by free

openings through the skull, meninges and cortical substances, if need be, to reach it. I would emphasize the word free openings, for there is always danger in small ones. The use of the trephine is indicated in all cases where there is a fracture of the cranium with probable depression or where there is a foreign body which is either lodged in the fragments of bone or has been driven through the membranes into the brain substance. When, however, we have opened the vault of the skull and find that a small bullet has passed into the brain, I deem it unwise to follow it with a probe, since the brain matter is too soft to guide our instrument, we would likely do more harm than would the bullet, if allowed to remain. The use of the trephine is also indicated in all cases of cortical hemorrhage, or whenever we can be reasonably certain of a collection of any fluid under the cranium. From personal experience, I would use the trephine in all cases of contusions or blows upon the head which produce coma, even if the coma be of a short duration and is followed by a rise of temperature. The surgical procedure of opening the skull is simple. First of all a clean shaven head, clean hands and instruments and clean hot water are necessary. The simple technique which I have adopted will be observed in the report of cases which are to follow.

Case 1. Male, white, age 17, had been given a heavy blow with a bat, such as we see on the baseball diamond. I saw him in consultation 32 hours after receiving the blow, and learned from the medical attendant that he fell in a convulsion and when the convulsion had passed off went immediately into a deep stupor, from which he had not been aroused. He had taken no food nor drink, nor had he passed any urine or feces. The left pupil was markedly dilated and the right one only a little larger than normal, with reaction to light in neither. There was complete paralysis, both motor and sensory. All extremities cold with a rectal temperature of 103 F. The pulse was small, feeble and irregular, while his respiration was 10 to 12 per minute, very labored and there was great relaxation of the pharyngeal and buccinator muscles. The scalp was not cut at all but was much contused and swollen. There was marked depression of a large plate of bone, including both tables as you may see. The two lines of fracture extended from a point near the center of the left supra-orbital ridge backward; one passing upward near the sagittal suture, and the other dropping down near the temporal fossa, again converged and crossed each other just in rear of the coronal suture and about one inch to the left of the sagittal. The upper line then curved downward and forward to a point just behind the left ear, while the lower one passed across the sagittal suture and, leaving the occipital bone, came forward to a point near the center of the right parietal. The patient's head was given a close

shave and carefully disinfected with green soap and water, and then ether and alcohol were freely used, which makes even a greasy scalp practically aseptic. No anesthetic was needed until after the depressed bone and blood clot were removed. A semi-circular incision was made with one stroke of the knife passing well down upon the skull, and reaching from the center of the left supra-orbital ridge up to, and beyond the sagittal suture curving thence downward and backward across the left occipito-parietal suture. The scalp was quickly raised and turned down over the left ear, only a few hemostatic forceps being necessary to prevent bleeding. Being thus laid bare, the two lines of fracture above described were plainly marked by an oozing of a dark thick blood.

The trephine was used at the crossing of the two lines of fracture and with a strong forceps the depressed section of bone was quickly removed. Between the dura and the skull, we found a blood clot one-fourth to one half an inch thick which had separated the dura for a space of two and a half by five inches. It was found necessary to remove a great deal of the skull, which was done with the rongeur forceps, and the bleeding vessels were picked up with a small curved needle carrying a fine cat-gut ligature. The pressure being now removed our patient showed signs of life and we began slowly the use of the anaesthetic. The capillary hemorrhage was soon checked by hot clothes which were gently pressed against the dura, and after thoroughly cleansing the wound and making sure that all the blood clots had been removed the scalp was closed with interrupted silkworm gut sutures and left without any effort at drainage. It was agreed however that the attending physician, Dr. J. W. Hagood, should examine the wound thirty-six hours later, and remove one of the stitches if necessary to allow the escape of serum should it accumulate in sufficient quantities to make pressure. This he did and about two ounces of serum were drained off. The wound healed kindly and we removed the sutures on the fifth day. Before we could cleanse and dry our instruments, this patient arose without assistance from his bed and stood erect, holding a urinal in his hand, and making an effort to empty his bladder. Of course he fainted and was caught before he fell to the floor and was quickly placed in bed. In a few hours the stupor was gone and the patient's mind was entirely clear. For quite awhile since his recovery he has been a student in the Eufaula District School, where he has displayed quite as much intellect as before. He is still strong and vigorous and has developed no epilepsy or other evidence of injury from loss of that great amount of skull.

Case 2. Case two was seen after he had encountered a load of buck-shot, which entered his skull just above the left eye, ranging obliquely

upward and backward and passing out at a point near the parieto-frontal suture carrying with it all of the tissues above its path. The opening in the skull measured one and a quarter by two and a half inches, and that of the scalp was, of course, much larger. Quite a little bit of the meninges was torn away and there was considerable waste of brain matter. About one hour after being shot this man was seen by Dr. Geo. W. Huey, who, after a hurried examination, was so confident that death would soon relieve him that he made no effort to cleanse the wound, but simply bound it up with a roller bandage, including in its coils the head, hair, blood-clots, brain tissue, dirt and all. The patient was suffering great pain and was given for his relief morphine hypodermically. His shock was very slight, never losing consciousness and in a short while he took nourishment freely, slept calmly and when awake would talk pleasantly to those about him, insisting all the while that he was not yet ready to start on a tour of that undiscovered country. When I saw this man about thirty-six hours later his mind was still clear, circulation and respiration fairly good, while his temperature had risen to 102 F. After shaving a large area of the scalp, the wound was carefully cleaned and rendered as thoroughly aseptic as could be with first a solution of borac acid, then normal salt solution, followed with warm sterile water. After raising the scalp around the bony opening, using rongeur forceps, I very cautiously removed all projecting spiculae of bone and with small curved scissors cut away several threads of dura; then with scissors forceps and spoon I removed, very gently of course, every particle of loose or injured brain substance, in all about three fluid drachms, without exciting much hemorrhage. It being impossible to coapt the torn edges of the dura and those of the scalp as well, no effort was made at stitching. After the free use of a warm saline solution a dressing of sterilized gauze absorbent cotton, oil silk, and a bandage was applied and all securely held in position by a snugly fitting night cap. The patient rallied promptly from the anaesthetic, showed wonderfully little shock, considering the amount of actual interference with and the great loss of cerebral tissue. The dressings were renewed every third day, while the surface granulated nicely and came rapidly together, closing the wound entirely in about four weeks. To our great surprise and comfort the conglomeration of tissues which composed the cicatricial covering of this wound, did not give him pain at all, and our patient's mental condition was quite as good afterwards as before the operation. During the subsequent six months a close watch was kept over him and he developed no epilepsy nor other symptoms of pressure upon the cerebrum. I had determined to watch this man, expecting, of course, that some such symptoms would in the course of time make its ap-

pearance. But further observation was made impossible by a neighbor, who attacked him with a winchester, and though his aim was true and every ball passed entirely through the body, he found it necessary to pursue his victim and fire the fourth time in order to kill him.

Now, Mr. President, no extra amount of surgical skill or experience was exercised in the management of these cases and happily both recovered, as have several others of equal interest. A reasonable supply of instruments and dressings, a fair knowledge of regional and surgical anatomy, a moderate degree of familiarity with surgical technique, along with the cardinal points in the diagnosis of head injuries, and the courage to do all that ought to be done are the requisites.

Another case which did not terminate so happily illustrates very forcibly, and very sadly, too, in this instance, the great necessity for a more extended and careful study of the special centers which are likely to be injured by accidents to the cranium. And this case will also impress upon our minds the necessity of pursuing our examinations far enough to ascertain if there are other injuries, such as fracture or dislocation of the spine.

This was a strong, healthy, young negro, upon whom a tree had fallen some twenty hours before my arrival. There was quite a good deal of bruising and swelling of the scalp, and an injury, which, to the attending physician, seemed to be a fracture with depression and a blood clot that probably covered the motor centers of both sides, thus accounting for the complete paralysis that was present from the shoulders down. He could not move his hands except in a very slight rotary motion, and his legs and feet were as still as if hewn out of marble. Except in the mouth, all secretions and excretions were nil. As did my friend the attending physician, I too quickly arrived at the conclusions that this extensive fracture and its consequent injury to or pressure upon the underlying brain was responsible for all this array of symptoms. And without making a thorough examination of the spine, we trephined in two places without finding sufficient injury to, or pressure upon, the brain to account for the paralysis. We felt quite sure that a large blood clot might be found at or near the base of the brain but did not further attempt to find it. Without having injured the meninges in any way, we closed the scalp wound in the usual manner and awaited developments, which came a few hours later in the form of a violent spinal meningitis due, unquestionably, to a fracture of the spinal column about the dorso-lumbar junction with probable concussion of, or pressure upon, the cord. I did not see this man after the operation, but was informed that death came to his relief after forty-eight hours of intense suffering. No amount of skill or care which

might have been exercised would have saved his life, but I must confess that my recollection of this case is not comforting.

Would time allow, I could report some other cases the recollections of which are much more pleasant. But if only our successful cases are reported, there would be a lack of brightness in the light houses which should keep our less experienced brethren off the rocky shores of the surgical sea. I do not claim that we can become really expert in every branch of the science, but I insist that we should overcome that lack of self-confidence which is so common among general practitioners. It is clearly our duty, both to ourselves and to our patients, to become fairly proficient in the diagnosis and treatment of these emergency cases of cranial injury. Every one of us possessing the ability to practice general medicine, can in some way find time and opportunity to equip ourselves for success in this line of work. It will not only be the best financial investment of a lifetime, but will add abundantly to our ease of conscience and to the future happiness and comfort of our patients.

Every moment of our professional life is one of great responsibility, filled with duties which demand of us the exercise of a sound mind and a discriminating judgment. We should so train our minds that in all emergency cases we may really observe the symptoms, and quickly give to them that intelligent comprehension and consideration that will at once point us to a correct diagnosis and guide us in the successful treatment of our cases.

THE "MECHANICAL" AND "OPERATIVE" LINES OF ORTHOPEDIC TREATMENT.*

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When one reviews the treatment recommended for any single affection in the entire domain of medicine, one finds a variation which may run from a mere difference in dosage to the employment of measures almost opposite in the principle of their action. Throughout one entire branch of work, however,—large enough to form a special field of surgery,—careful study will show that two distinct ideas form the basis of all the means brought forward for the relief of the conditions here met with. I refer to Orthopedic Surgery, embracing thereby all such affections as are now being conceded to fall within its scope; and the two ideas at the base of all present orthopedic treatment may be expressed in general terms as the "Mechanical" and the "Operative."

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The origin and development of these ideas, though easy to trace, belongs more to medical history than to a brief sketch of their effects; but in the larger cities of the land, wherever are found two or more hospitals devoted to Orthopedic work, we may easily note how the parting of the ways many years ago, left one to pursue one principle of treatment to its rational limit, while the other with equal persistency strives to attain as good or better results along the other line. There are thus two "schools," we might almost say, whose followers are rarely so bigoted as to deny the good that may be effected through the procedures of their rival brethren, but who are firm in believing and attempting to show that the more logical measures belong to them. If one side has the better argument in some cases, while in others it is at fault, we may judge for ourselves by rapidly going over those affections, from head to foot, where more than one manner of treatment has been employed.

Let us consider, first, torticollis. Here the difference of opinion hinges chiefly on the diagnosis of the variety of the torticollis, as due to the exciting cause. Excepting of course such cases as hysterical and ocular wry-neck and the wry-neck of cervical Pott's disease, where the deformity is merely symptomatic of other trouble and the treatment directed accordingly, we see but little argument over the correction of the chief remaining forms,—the congenital, the chronic acquired, and the spasmodic. Where "looks" is the only consideration, one would hardly offer a brace as a permanent substitute for a mere twisted neck; a substitute which would be more unsightly, and would at the same time fail to remove the cause. In like manner, where there is a contracted and fibrous sterno-mastoid, of long standing, no one except, perhaps, the patient would object to a myotomy; an operation both safe and curative. In the severe but fortunately rare spasmodic form, a resection of the spinal accessory nerve is the most promising method of relief. There is some disagreement in the early cases of congenital torticollis and of those due to reflex irritation; some recommending long-continued massage, stretching and exercise, and others believing the indications to be for immediate tenotomy or myotomy.

When we come to tuberculous disease of the shoulder-joint, we may as well first consider the general points in the different treatments of all tuberculous joint-diseases. The open-surgery advocates believe that the logical thing to do is to expose and remove the focus of the disease; that thereby they may abort several years of invalidism, with a functional result almost if not quite as good as the one to be expected following the slower course. The adherents of the mechanical or instrumental idea claim that they are dealing with a process where the prospect of a natural cure is excellent, and of fair functional re-

sult probable, when nature is guided and assisted mechanically; but their strongest contention is that excision or resection does not by any means always remove the numerous foci, and that it does either excite more serious local trouble, or sacrifice the patient to a general and rapidly fatal tuberculosis. Of course, in certain joints and under certain complications, those who hold to either theory are bound to modify or surrender their opinions.

Return now to disease of the shoulder-joint. Since this is found more often, comparatively, in adults, and since joint-disease in adults is so frequently but one expression of a general tuberculous involvement, the prognosis for recovery with good function is not so bright as the anatomy of the parts would seem to promise. Hence, except in young and robust patients, apparently able to withstand a lengthy infection, the operative method is most conservative, leaving also an arm where diminished joint-motion is rendered less serious on account of the free motion which the scapula affords. In cases treated without operation, however, there usually result after a cure considerable fibrous ankylosis, with about the same freedom of movement as follows excision.

In disease of the elbow-joint, next, we find that the anatomical factor is almost the deciding one; for we have a joint of fine mechanism but of complicated arrangement, where the slightest permanent change must injure its usefulness very largely; for even the fibrous changes and synovial loss following a natural cure will limit motion to a slight flexion. By excision, a fairly useful "flail" joint will often be obtained, or else ankylosis at the chosen degree of flexion. The mortality is low enough to be encouraging, and recurrence of the disease should not follow a careful operation. The mechanical treatment brings us at once to a much disputed point of division among the advocates of the mechanical theory; this is the relative efficiency of simple immobilization, and of simple traction. Obviously, whatever degree of separation of the diseased surfaces we may secure by traction elsewhere, no amount of force could here separate ulna from humerus; hence absolute immobilization, which is feasible, must get the credit for assisting nature in her cure; and such immobilization does effect a cure, though often with ankylosis. In general, when fairly heavy use of the arm is to be expected, excision seems indicated; but when only light work will be needed, we may be content with a flexed and rather rigid limb.

[When the wrist joint is the seat of tuberculous disease, we have indeed a poor prognosis; a policy of non-interference cannot prevent a spread of the process through a most complex joint, with the destruction of bone after bone, while if the knife be employed at all, it must

be freely used to do any permanent good. Mechanical treatment will, I think, in most cases obtain a slightly better result where any result is bound to be poor.

Coming next in order to that most common of all tuberculous joint affections, Pott's disease, we see how necessity, almost, has driven its treatment to follow along one line, the mechanical. Though the controversy is spirited as between the plaster jacket and the steel brace, or modifications of both, these means of treatment merely represent the one idea of "support, protect, and let be." Attempts, generally disastrous, have often been made to hunt out and remove the diseased focus or sequestra, and more logical but questionable efforts are still made to forcibly correct the resulting kyphos; but the strongest arguments of the so-called conservative party have been in the cures of so deep-seated a bonelesion, by merely giving the proper support to a weakened spine. The mechanical line of treatment therefore has in this country almost a clear field, and one form of support is better than another in so far as it is more efficient mechanically for that particular region or condition.

To leave tuberculous diseases for a moment, let us, while we are considering the spine, see what is being done for lateral curvature. Many of you had the privilege last year of listening to a discussion of this subject, with a proposed and original operative treatment, as given before this Association by Dr. Hoke, of Atlanta. This most baffling of deformities had hitherto been treated mechanically, and we might say symptomatically; for one cannot remove the deforming cause, when, as often, it is not known. Since Dr. Hoke's report was not claimed to be conclusive, but rather preliminary, it is no reflection on his operation to say that we must wait before comparing this new operative method with any of the former ways of mechanical treatment; expressing meanwhile a deep hope of success in this important subject.

Reaching the hip-joint, we may first regard briefly the subject of congenital dislocation; a subject probably holding a prominent place in your minds since the "Lorenz method" awakened such a widespread discussion regarding itself and the "open method." Here, as in contrast to the treatment of Pott's disease, we could strictly consider this dispute as being more of a dispute among those holding to the operative idea, and dismiss it from such a comparison as the present; for in reality there is now no attempt to reduce the average dislocation by slow and mechanical means, or to apply braces to assist the unreduced femur; if something is to be done, the head of the femur must be introduced to a natural or artificial socket, quickly and forcibly;—in other words, by an operation—and the means to that end is a question for the operating room, not for the outside treatment.

In taking up tuberculous disease of the hip-joint now we reach a field of such widespread and bitter disagreement that the distribution of ideas has been said to be almost geographical. The operative idea of attempting to rid the body of this tuberculous process through an incision, has its stronghold in Germany; the more conservative plan of protecting the joint and insuring against deformity while waiting for a cure by nature, is the approved procedure in England and America. These latter two countries are themselves representative of differing opinions as to the better method of mechanical treatment; English surgeons believing in the greater efficacy of complete immobilization, while the earlier American orthopedic men strove to apply continuous traction, allowing possibly a small range of motion. We have never been able to see over here any reason for attempting excision except as a last resort; and the numerous objections to this method, led by a most discouraging mortality would seem to indicate some form of mechanical treatment as the logical means of procedure.

Leaving the hip and taking up in turn tuberculosis of the knee-joint, we meet a condition where the indications vary largely according to external considerations. The frequency of the disease in adults is relatively large, and a merely protective treatment does not relieve a man from being long incapacitated for hard work; hence most surgeons prefer to excise the diseased bone, or to amputate with a view to giving a fairly useful stiff limb, or healthy stump, and a more speedy return to active life. That such a good functional result is not ultimately the result more often, may be justly blamed either to a faulty technique or to a tuberculous involvement of other parts. It is however unfortunately true that many cases where excision has at first been apparently successful, must later resort to a support for the useless limb. In children, however, time is not so important, while moreover a limb minus two epiphyses has a serious shortening as its certain prognosis. Mechanically, there may here be applied the same principles, of immobilization with or without protection from weight-bearing, and of traction, or both. Efficient traction is certainly doubtful; immobilization should be almost perfect; and though many assert, without attempting explanation, that weight-bearing is not harmful to an immobilized joint, the side of safety is also the side of protection from weight. The chief deformity, subluxation, can be guarded against, and the prognosis is fairly good.

When the ankle-joint is diseased, there are no hard and fast lines of division between the means to be employed; treatment may be said to be expectant, in that more radical measures can be safely reserved and successively employed on the failure of conservative methods. In other words, it is admitted that the protection to the joint results most

frequently in a cure with a serviceable foot; should abscess be too severe, or healing be too slow, an excision or removal of bones may yet afford good walking-power;—or, as a last resort, a painful and deformed foot may be removed and its function supplied by an artificial member.

There remain but two or three conditions about which I shall say a word. In the case of bow legs and knock-knees, there is certainly a marked difference between protective bracing until the child outgrows the curve, and femoral osteotomy; yet more often it is the demand of the parents rather than the judgment of the surgeon which decides between the two. In a large number of such cases falling well within the limits of slight or exaggerated deformity, either treatment is good treatment, yet the conditions must make the choice.

The various effects of infantile paralysis have until recently been attended to by such forms of splints as tend to take the place of the paralyzed muscles; but their use is demanded as long as the patient lives, nor can the most ingenious ones render the function of the leg perfect. A most promising field has been opened up by tendon-transplanting, which is peculiar in that by operative means it makes Nature mechanically relieve the lameness. Tendon-transplanting should and will be more generally undertaken, and with increasing success.

Flat-foot, the importance and the diagnosis of which are both receiving more careful consideration, has been treated in the main by supplying some form of false arch. Now and then there arises some operation such as the one attributed to Dawbarn, where a cuneiform section is removed from the tarsus. But failure of relief by a mechanical arch is nearly always due to lack of detail or patience, and it is to be questioned whether the victim of excision can ever walk with comfort upon a thick mass of scar-tissue. The natural property of contractility possessed by this same scar-tissue,—a property exercised in increasing degree long after the operation,—is one which alone to many minds stamps as illogical any cutting operation for the correction of infantile club-foot. I am aware that an immediate good result by the use of the knife is easy to attain, and that such surgery is linked to the name of the late Dr. A. M. Phelps, an able authority in Orthopedics; but there are many observers who happen to catch these cases as they drift from place to place, may be years later, and who find a deformity made worse by the slowly contracting power of these large scars, whether they be of the "open" or the subcutaneous variety. A thorough trial of judicious manipulation and bracing is nearly always rewarded by a sound foot.

And now having for the sake of time and patience touched in a merely general way upon several of the more common means of treatment,

I wish to define clearly the ideas which I have meant to convey; that though as in many other lines there may be at our command widely different agents for restoring diseased parts to health and usefulness, we have here a whole field where agreement upon etiology, pathology, and diagnosis often changes abruptly to disagreement upon the question of treatment. Without regarding the many cases where the conditions found would clearly give the preference to one method or another there is yet to be seen here a difference of belief that must indicate a marked personal bias, and consequently a very unsettled state of orthopedic treatment; hence until experience shall be able to establish the right and the wrong more conclusively, we should most cautiously accept even the best-known methods for relief, whether Mechanical or Operative.

THE DOCTOR'S BUSINESS SIDE OF LIFE INSURANCE.

By E. H. SHOLL, M. D.,

GRAND SENIOR LIFE COUNSELLOR, BIRMINGHAM, ALA.

In January, 1904, I received a communication from the Manhattan Life Insurance Company of New York requesting information concerning a certain doctor who had applied for a position as Medical Examiner of that Company. For many years such matters have been referred to me by various companies, often requiring time and care and painstaking investigation in order to secure a reliable and also correct statement of the facts. This request brought sharply to my mind two considerations pertinent to this case. The one that the doctor had been absent from the city for fifteen years, during which time I had no opportunity of coming in contact with him and learning all the details of his professional life. Without this knowledge, I did not feel that it was just to myself or the Company to certify as to the propriety of his appointment.

The next and to my mind very important one, was that this request was not merely a matter of courtesy to the doctor, but one of vital and profound interest to the Company, the very basis of their successful operation in the field of their work through the protection of those whose interests had been entrusted to their care by the judicious selection of competent and trustworthy men.

This being the case, and the companies being by far the largest beneficiaries of correct information, I reasoned, and I believe rightly, that the doctor who furnished it was entitled to a reasonable fee for his services, not less than the usual fee of five dollars given by reputable companies for any ordinary examination; more, if the investigation

required time and attention to obtain necessary facts. For many years these invaluable details have been furnished freely by the doctors gratuitously. With their many millions of dollars of accumulations in the old companies, far beyond the requirements of their mortuary demands, it seems but just and right,

"That rewards should cleave to deserts
And power to him who power exerts,"

or that those who have been the bed rock of those accumulations should share in the results.

To the request made by me of this Company for a reasonable fee, the reply was made that this was the first time that such a request had been made—only this and nothing more—nothing mentioned as to fee. Since then some life insurance company in the state of Illinois asked for like information. A similar request for a reasonable fee for the services was asked before they could obtain from me the intelligence they wanted and desired. Silence prevailed and still prevails. I ask the doctors of Alabama to join with me in asserting only a just right; not to be longer the bearers of care and time that yield no fruits, but to require in all such cases a fee justified by the demand. Co-operation by the profession at large will solve in time this phase of our relation to life insurance, in such a way as shall inure to the benefit of the profession free from all features of injustice to ourselves and to them. "The laborer is worthy of his hire," and should have it.

Legal advice sought on any subject relating to similar interest would require and readily receive a just and proper compensation, and would scout the idea of it being a matter of courtesy to John Doe. On equally as broad a basis the justice of our claim lies. My own stand in this matter has been permanently acted on and without any thought of discourtesy to my fellow physicians, who can if it has not occurred to them in the past, readily see the justice of the line of action assumed by me from this time forth.

PRESIDENT'S ADDRESS.*

JOHN H. MUSSER, M. D.,

PHILADELPHIA.

It is no trifling occasion that draws together from the uttermost parts of the country a fifth of an organization of a profession that is taxed to its utmost in the prosecution of its duties. It is not with

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sounding trumpets and tinkling cymbals that from the sorrowing bed-sides—whether in the hovel of the poor or the palace of the rich—from the excitement of the operatingroom, from the stimulus of the hospital ward, or the quiet but inspiring haunts of the laboratory this assembly gathers. That it is possible is a handsome tribute to the noble animus in which are embodied a spirit of inquiry, a thirst for knowledge, a longing for inspiration to uplift and to be uplifted that pervades the profession. The event is one that should be fraught with the dignity, the inspiration, one might almost say solemnity, befitting a symphonical march. For such animus, fellow members we have just cause for self-congratulation.

It scarcely need be reiterated here that the spirit which pervades such a meeting is the outcome of that evolution which began with the introduction of precision in medicine. Just as soon as the art of medicine had for its foundation the science of medicine, the possibility of harmonious medical organization arose. When "rule of thumb," or intuition, gave way to precision; idealism to realism; when speculation was displaced by fact; when inductive methods were employed and honest inquiry became the guiding star of action, then harmony could sit in council.

With medical, as with all organizations made up of human elements, it would be only human if not precluded by the essence of science—truth. Hence with the latter wanting, jealousies and ambitions, self and selfishness, would prevail to the end that the true object of organization—a fraternal spirit and conscientious seeking for truth—would be as a flickering flame. A little observation will show that that society, whether county, State, or national, that does not have this true reason for its existence, for its guide of action, will be a failure. The reverse is also true, that that organization which may be called unsuccessful and unhappy, of snarling men, and backbiting colleagues, can be labeled at once as without its true vocation, to the discredit of its members.

The great heights to which our organization is rising rapidly preclude activities of such as have self for their basis of action, so that each day we see more and more a noble rivalry of its members to do the utmost and the best for the organization; a healthful vying with one another for its welfare. Self and selfishness are looked at askance; partisanship and faction, save for a common end—the welfare of the Association—are memories.

But, fellow-members of the Association, at this the fifty-fifth session of our Association we have other causes for congratulation

and felicitation. We are on the eve of a union of all the members of the profession in one harmonious organization, each individual of which is willing and proud to consider his fellow a gentleman until he is proved not to be, and not, as of yore, a knave until he is proved to be a saint. We are reaping the rewards of that untiring committee which gave to us this organization, with which we now labor. We are prospering beyond measure and gathering a force scarcely to be estimated, in great part as a result of the untiring efforts of the apostle of organization—our McCormack. To say that 34 States have adopted the uniform plan of organization, and that "membership in the reorganized States has increased 400 per cent. and enthusiasm," writes our coadjutor, "tenfold more," is enough. We are standing out in our own manliness with the majesty that belongs thereto because of the sentiments expressed when our broadly inspired committee voiced the unanimity of feeling which belongs to the Association, in our principles of ethics. We are letting our light shine through the instrumentality of that genius of medical editors—our Simmons. From 5,000 to 20,000 in less than a decade is a statement of circulation which appals and at the same time arouses a feeling of pride and stimulates to further effort, increased all the more when we reflect that the scientific value of the articles in *The Journal* are surpassed by none of its contemporaries; its tone is emulated by all.

Such causes for congratulation bring to this Association greater responsibilities and weightier problems for solution. It is held to be the bounds of this address to indicate responsibilities, some trite and apparently trifling, others most weighty; to point out duties, many so grave and vast, beyond the powers of your official to justly define.

NECROLOGY.

Before passing to the task let us pause a moment and with due reverence take cognizance of our colleagues who have since our last meeting gone to the great majority. The Silent Reaper has been as rapacious as in the past, and more than 1,500 fell in his swath. He has spared neither the humble nor the great. The less conspicuous but just as potent laborers in the vineyard can say with the others: "I have fought a good fight, I have finished my course, I have kept the faith."

Of those who have been honored by this Association in the past we lost two ex-presidents, the hearty, rugged, yet withal gentle and kindly Donald MacLean, surgeon and teacher, and the urbane James Farquhar Hibbard, a revered general practitioner and teacher; two ex-vice-presidents in John Bates Johnson, one of the founders of the

Association, a great practitioner and honored teacher, and Isaac Newton Love, genial and magnetic. From the ranks we lost Edmund Andrews, scientist, pioneer in surgery and medical education in the West; George Julius Engelmann, obstetrician, scientist, litterateur, teacher, honored at home and abroad by membership in great organizations; James McFadden Gaston, pioneer in the surgical treatment of affections of the gallbladder and gallducts, an esteemed practitioner; Frank Staples, Hamilton Atchison West, Orpheus Everts, each obtained prominence and respect by force of character and natural attainments; Emil A. Schweinitz, scientist and brilliant investigator, laboring not for his own renown but for that of his profession, passing away at the threshold of a most promising career; Frank Savary Pearce, untiring and enthusiastic, who had been expected to counsel with us this week.

HOUSE OF DELEGATES.

The conduct of business under the new constitution bodes success. The two years of trial have indicated that to the House of Delegates the greatest responsibilities fall. When its members consider the great power the American Medical Association will have for weal or woe in the future, and that the great body gives that power almost unstintingly to the delegates, they should justly realize the honor and confidence bestowed on them. With such realization will come honest purpose and deliberate action. All the county and State organizations must appreciate the vast duties to be undertaken and the breadth of view, deliberation and wisdom essential to their correct performance and consequently select from their number the best of their possessions. Let us as an organization see to it that honor and homage come to those who labor unceasingly in the House of Delegates.

NATIONAL LIFE.

It can be readily seen that an organization of the magnitude and with the object and the spirit of our Association must in justice to itself and duty to its country take part in its social and political life. In order that we can be in touch with such life it would be well for the Association to devote some time to the discussion of broad general topics. We have provided for discussions at this meeting, the advisability of which may be termed tentative. We feel that they can be productive of great good, and if the experience on this occasion is the least encouraging, we would urge their continuance. We had hoped to have government officials take up matters pertaining to the relation of the medical profession to the executive,

legislative, and administrative departments of the government. The exigencies of politics forbade our obtaining the services of those worthy to address this body. All men of political affairs are too busy at this juncture. At other times we may learn with profit from our rulers and law makers. As arranged for this week, so in various parts of the country in which the meetings are held, broad topics of general interest, perhaps with local flavor, could be discussed. From those in the far West we might learn much of climate or how to conquer the plague, or the medical aspect of "the yellow peril." The good judgment of the committee, or the president, can be relied on to select topics suitable to the occasion.

It is needless to refer to the demands that will be made on us by the nation in the future. You will learn through the representatives of the Army, the Navy, and the Marine-Hospital Service what is expected of us. My distinguished predecessors, Reed, Keen, and others, have pointed out possibilities for good in the legislative halls of county, State, and nation. We must have care never to be partisan or factional toward the weighty matters we will have to decide. We must realize that the power we have may be our undoing. We must realize that we are entering on dangerous ground, and that it would better become us to be bidden rather than to intrude ourselves into such territory. Indeed, one may tremble not a little at the possibilities of our development in the wrong direction. So long, however, as we hold true to the spirit which comes out of devotion to science we need not fear.

THE SECTIONS.

The work in most of the sections the past few years bears favorable comparison with that of coordinated organizations throughout the country. To inflict discussion concerning them on this general meeting is, we realize, somewhat of a hardship. Your indulgence is craved, however, for through your medium alone can the sections be reached, while peradventure the work of these sections is fully as important as that of any branch of our Association work. If you will look you will find the rise of the Association came with the development of section work. To enhance the value of such work is, therefore, to uplift the organization. The present methods are worthy of trial for a few years just as we should not make haste in changing the new constitution. Regarding it, may we suggest thought along these lines?

1. The continuance of the secretary for a term of years.

2. The collaboration of sections so that one topic can be exhaustively considered at the meeting of the Association without repetition in other sections. For this purpose the officers of the sections should meet for consultation six or eight months before the annual meeting. We feel we did good work by having our distinguished chairman and secretaries come together last October.

3. The division of the Association into two main sections for work in the mornings, that of (A) medicine, including pathology, diseases of children, nervous and mental diseases, materia medica, stomatology, cutaneous medicine and sanitary science; (B) surgery, including obstetrics, gynecology and the more closely related surgical specialties. The members interested in diseases of the eye or nose or throat could contribute to either section the result of any studies related to the respective section. The afternoons could be occupied by the specialized labor of the 12 sections now in existence.

Perhaps it might be thought better to have one morning, at the direction of the Section on Practice of Medicine, devoted to the discussion of general topics related to medicine, in which the entire Association could take part; another morning, at the direction of its secretary, to surgery; a third to the specialties; a fourth to sanitary science. The object is to secure the views of physician, surgeon, and specialist on general topics. For instance, endarteritis is a subject to call up at once the possibilities for the internist, the surgeon, and the specialist.

4. The sections should take up and organize special international congresses when the time is ripe for such meetings. Thus an International Congress on Dermatology could be managed by the correlated section of this Association. With the patronage of the American Medical Association any congress that could command such special energies and broad general support could not fail.

5. The section should name to the president a list of its members from which he could select, when asked, delegates to important national meetings or international congresses.

SANITARY SCIENCE.

The Section on Hygiene and Sanitary Science should receive greater support from the organization. It is the section which must bring us in closer touch with our national life. Through it and those devoted to it we ought to secure greater respect from the body politic, and hence more wholesome power for the welfare of the community. Through it the profession should learn to take greater interest in the work of sanitary officers throughout the country. The valuable

address of Billings on "The Relation of Medical Science to Commerce" and that of Thompson on "The Economic Value of Medical Science" indicate the opportunities and responsibilities of the profession. The time has gone by when sanitary positions should be used for temporary sources of income and obtained by political means. Such offices are growing more and more vital to the public welfare. They have not been attractive because the rewards have not been commensurate with the responsibility and the labor demanded. They should, we will admit, if looked at from the proper viewpoint, grant large compensation and the occupant should be guaranteed tenure of office not subject to party exigencies but dependent on value received. The fault is partly ours that such is not the case. In but few medical schools is there a serious attempt to educate sanitarians; consequently the physicians who engage in sanitary science in an amateurish way do not give a quid pro quo. It does not pay a community to hire them. In one of the large cities of this country it has been impossible for the health authorities to get men who were competent to take up health matters, even though the city was prepared to pay fair salaries. Speculation need not run riot in estimating what would occur in a few years if our universities would give sound practical courses of a broad character, including some engineering, some economics and other features which would round out the man. In preliminary and subsequently in the elective studies the student should not be tempted to go into the special lines of practice. He should have opportunity to go in for sanitary science and perhaps for government service in the Army, the Navy, or other departments. The communities would soon find the worth of men thus educated, and the demand, we would venture to predict, would outrun the supply. In proof of the former, we may cite the fine tribute given to Wende of Buffalo by the citizens, en masse and of one accord, for the work of self-sacrifice, of unselfishness and of worth, as official of the health department. Our Association could as a body and in its constituent parts encourage the medical schools to make such training possible; they could educate the community to demand such services and insist that good compensation is to be allotted for it. The Section on Sanitary Science could take up this as one feature of its work.

But for more grievous reason, the profession's attitude, there is public disrespect. Survival of the old dictum that a patient's woes are confidential, supports too often the attending physician in failing to realize his responsibility to the community while attending to the

welfare of his client. For this, as well as too often for personal reasons, he readily connives with the patient to thwart civic authority, thereby endangering a community. Instead of aiding in securing respect for and obedience to the rules of his sanitary colleague he joins in opposing him. Candor must compel us to admit that too often he fears the advent of the health official may mean some disclosure of his own incapacity. It is fair to say the official on his part is often too ready to give advice, to sneer at diagnosis, or rail at treatment. To inspire, therefore, wholesome respect toward these co-workers and establish an esprit de corps should be one of the educational prerogatives of this section. Were we to be called to account for duties undone, the sin of not fulfilling our obligation to the community in sanitary matters would doubtless be found the most conspicuous, the one most detrimental to its interests.

Again, if not too insistent, could not his section further educational exhibits in sanitary matters not unlike superb exhibit last winter in Baltimore, conceived and conducted in the main by our present official of the Sanitary Section? The Association could not do better than issue a grant for the furtherance of this object.

THE SCIENTIFIC EXHIBIT.

It is gratifying to see the interest and success attendant on this new feature of section work. It is another tribute to the belief in the permanent tenure of office of an official when we have the good fortune to get a good one. Atteneion is particularly called to this exhibit to ask the Association and the other sections to look to the conduct of somewhat similar exhibits. The Section in Ophthalmology showed the possibilities at the time of the Helmholtz anniversary. When a section takes up a subject let us not have the clinical, pathologic and therapeutic aspects alone discussed, but bibliographic and historic features brought out. Let such features be as national as possible. What a fine exhibition it would be to have in connection with, say typhoid fever, a loan collection of the pictures of authors and investigators, of the various editions of their works and of the material things with which they worked, illustrating the evolution of their knowledge of the subject. Who would not be thrilled by a picture of the wards of the old Pennsylvania Hospital where Gerhard worked, of the instruments or materials he worked with, how he lived and what he did; of the first editions of his works, indeed of the manuscript of them? We must confess to a quiver of delight, mingled with reverence, on being permitted to handle the manuscript on

which Stille inscribed his communication to the Paris Society. This is not the time or place to indulge in a homily on the value of such exhibits, agreeable though it might be. Through them as of biography and sculpture and painting, we keep in touch with our history. Foster efforts in these directions, gentlemen of the Association, grant liberally to sections their small demands on you, to the end that you will be stimulating the best instincts in our profession.

THE ASSOCIATION OF LIBRARIANS.

We are not far amiss when we call attention to an organization which in a quiet, unobtrusive way is bringing together the members of the profession on a common ground, where tares do not spring up and thistles do not blossom, but instead there is an atmosphere clear, refreshing, invigorating. Jealousies do not thrive in libraries; books soften ambitions. No stronger, more liberal friendships can develop than those that come to book lovers. We owe a debt of gratitude to the Library Association and to its distinguished president, under whose fostering care the influence and power of the Association are unfolding as the hardy rose, exhaling like it a fragrance which cheers and stimulates. Of the many abundant works we owe him, none, we venture, will be more satisfying to him and more lasting for good than the work of the Association of Librarians. This Association should hold not its hand nor stint its heart in upholding its educational efforts.

THE RUSH MONUMENT.

Before this session adjourns, by proper ceremony, graced by the presence of the President of the United States, with an oration befitting the occasion by our distinguished colleague, Dr. Wilson, the monument erected by the Association to the memory of Benjamin Rush will be dedicated. The Association is to be congratulated on the completion of this tribute in perpetual bronze to one of the most distinguished of our countrymen. Not alone should we rejoice on the fruition of this agreeable task but also because it augurs for the erection in the future of tributes to the memory of others full worthy of our reverence. The invigorating, stimulating influence that comes from having about us our heroes of the past in stone or bronze behooves this Association and its constituent bodies to strain every effort to encourage in this manner hero worship. It is due ourselves to perpetuate the inspirations, the thoughts, the feelings in the counterfeit presentment of our fellows. We are not of those who decry the world because it has not recognized our Jenner, our Pasteur,

our innumerable heroes either by reward in their lifetime or by permanent tribute. We do not begrudge the mead of praise and the plenteous bounty which flow to our warriors and statesmen. It is true their glory has been attained often by carnage, lives sacrificed to avenge some insult. It was not life that was at stake. It was principle or thought or feeling or, our misanthrope suggests, greed. What countless lives are sacrificed for aspirations; what thousands of innocents for national gain. So, to the actors who stand for such, unstinted regard is given. The public neither appreciates the loss nor the saving of life. Hence, so long as it does not come close to them, civic murders from bad hygienic conditions do not move them. Even when home is devastated they submit to that which they consider mystifying or providential, and merely go their way. They are callous beyond measure to the presence of epidemics. They do not consider for one moment the power they have to assuage the virulence or even wipe out the existence of pestilence. Every effort for amelioration, as we see in tuberculosis, comes from our profession. With such lack of appreciation of their own welfare we need not expect much appreciation from them of our efforts.

In all honesty, we must admit among ourselves, we may not deserve public appreciation. If we realize the truth we may make amends. Could the public be expected to revere and respect when, as usual in the past, perhaps too common now, the profession was divided against itself, not from principle, but generally because of pocket, of sordid ambition, of devouring jealousy? Look ye to your county societies! Do the brethren dwell together in harmony? Go to the warfaring courtrooms! Do we emerge from them respected and respectful of one another? Until such sores are healed, as they happily will be, when science—and hence liberality of mind and largeness of heart—is furthered by associations like ours, then will we be respected.

MEDICAL EDUCATION.

The object of this Association shall be for the purpose of elevating the standard of Medical Education.

This Association has been, should be, and we trust will be, the storm center of legislation for reform in medical education. Since the memorable editorials of Wood in the old Philadelphia Times, and the masterly papers and addresses of Pepper and the practical action of the University of Pennsylvania there has been virile progress. In most respects it seems definitely settled as to the course of educa-

tion a candidate for the degree of medicine should take. Questions of pedagogy are still debatable, but we take it that that student who wishes the quickest returns, the most lasting remuneration, perennial stimulation of the intellect, and continuous enjoyment in the pursuit of his labors, should take a college education of three or four years, four years course in medicine, and, if possible, a hospital internship.

Reference need only be made to the reports to this Association, to the famous report of the majority committee of the Association of American Medical Colleges, to the numbers of *The Journal* comprehensively devoted to education, and to many recent admirable addresses in support of the statements.

There is talk about maximum and minimum requirements, about laboratory and hospital courses, the merits of didactic and clinical teaching—a mass of material brought forth from the viewpoint of the educator, or looking to the welfare of the medical profession. We do not minimize the value of such lines of discussion. It has brought us to the position we have attained. But what of the medical student? Should we not look at education from his point of view? Is he quite able to decide whether he should take up the profession of medicine? We hold that a great duty is due the aspirant for medical honors from teacher and practitioner. It is a kindness due him to point out the best methods of securing such education as will yield him results commensurate with the time and expense required. It would be a greater kindness to be enabled to show him that by reason of intellectual temperament or of physical or moral qualities he is not likely to reap the rewards he is anticipating.

The large majority of medical students do not have a good reason for studying medicine. They are ignorant of the mental and physical demands made on them. They are attracted by an uncertain glamor and a specious glory, and heedlessly they go in. The failure of a large percentage of graduates in medicine to acquire more than a bare existence, and too often not even that, proves that they were not educated properly, not fitted temperamentally or physically to pursue its duties. Should they not have opportunity for learning of the responsibilities and difficulties, rather than to have the brighter phases glorified? Would it not be well to have in our college curriculum a course of lectures for the student who contemplates entering a profession, pointing out the rocks and shoals in his prospective career? An eminent practitioner, not connected with medical schools, would light up and darken the pathway in due proportions. Then,

too, should not, as in the Army and Navy, some physical tests be required? The trophy is to the robust, and sad will be the career of the man who is physically handicapped.

If there were any doubt about the value of a college degree to a man entering the medical profession it could be set at naught since the report of the Mosely Education Commission. Quotations like the following, while not pertaining to medicine alone, the result of extensive inquiry and mature deliberation, supported by the statistics they give uphold the contention of a large employer, that "for 99 per cent. of the non-university men it is hopeless to expect to get to the top." One opinion they express is that "there is still room for the boy of marked ability 'to come through,' but that his difficulties are greatly increasing, and that, useful as he is, his usefulness would have been greatly enhanced had he the benefit of a college training." Still another commissioner reports that while only "one per cent. of the entire population of America has received a higher education in her colleges and universities, this one per cent. holds more than 40 per cent. of all positions of confidence of trust, and of profit." It is well known that the "geist" of the individual brings success, for which they say "it is recognized that the educated man takes in a wide horizon and puts more 'soul' into his work."

The essential of success in any department is diagnosis, which requires powers of intellectual penetration and discrimination. President Thwing has again forcefully urged that "the reasoning of mathematics—and mathematics is only reasoning—tends to promote clearness and accuracy in perception, inevitableness in inference, a sense of logical orderliness. The study of the languages represents the element of interpretation. The study of history means the interpretation of life." Are these not the main studies of a college education? While they may promote scholarship, they surely cultivate thought. It need scarcely be pointed out to this audience that to be a thinker is the salvation of the physician.

To the plea that the acquirement of a college degree takes up too much time and requires too much money, the material answer can be given from other sources to the effect that "the men whom you are surprised to find holding such important positions in factories, though not much over 30 years of age, are the very men who did not leave the technical college till they were 23 or 24; the graduate may have been 25 before he donned a jumper, but in five years he learned more with the college training he had as a foundation than the regular journeyman of 15 years of actual work in the shop." The experience

of teachers who have watched the alumni agrees in that the college graduates get quick returns and soon acquire a position of independence.

The poor boy, therefore, need not be deterred, for if he has the spirit and energy to work his way through four years, two years or three years more will be but very little in the final summing up. If the student only knew that the purchase of the best education, whether reckoned in time or money, is the most economic investment, in that as to the former, a thorough education at first is time-saving in later years, and as to the latter, the money outlay is returned more quickly, in the more immediate work and larger pay.

There should be one educational requirement—the equivalent of that for which a first-class college degree stands, whether received at a high school or university.

After entering the medical school with, it is presumed, the proper educational attainments, his career the first year should be closely watched. That school has too many students if it does not have enough instructors in the first year to be able to judge with reasonable degree of accuracy of the character and moral stability of the men. This is not to be taken in a prudish sense or with too critical a scrutiny of habits which are the overflow of the animal spirits or the expiring exuberance of the boy approaching manhood. This can be said, that a student who does not play fair in his exercises, who cheats in one demonstration or evades another, who does not show manliness, frankness and truthfulness in his first-year duties, will not be a good diagnostician. He will cheat himself; he will cheat his patient. The teachers of the first year, or at least the second, should know this and block the student there and then. It would be a kindness. Let us then agitate whether we should not have a certificate of manliness, a certificate of health as well as a certificate of mental proficiency, before we admit students to our medical schools or permit them to go beyond the first year. Let us not be decoys, alluring them on to later destruction, but rather be guardians wrapping the strong arm of experience about them to lead them to the fitting pathway.

Having permitted the student to pass further in his pursuits, we still owe him much. We must see to it that such course is given him the first two years of his student career that he will acquire such fondness for the science of medicine, such reverence for the exploration of its truths, that until his dying day devotion to it will be his stimulus and solace. As a corollary, we must insist that medical schools

secure the best men in the market for these places and pay them salaries commensurate with their ability—good living salaries.

It is in the first and second years of his career that the foundations are laid whereby the student becomes the medical thinker. To quote again: "The power of thinking should not be of a base and barren character. The thinking should represent and be concerned with a fine and rich content of knowledge. It should have the exactness of intellectual discrimination; it should have the fulness of noble scholarship; it should embody a culture which is at once emotional and esthetic and ethical, as well as intellectual."

That a desire to relieve suffering, to extend sympathy, to save life, is the impulse of the physician, we all admit, but where is the man among us who will not also admit that a scientific habit more quickly brings it about, more surely sustains and fortifies the human instinct through the trials and tribulations of exacting practice? That prosecution of professional duties soon becomes commercial that does not have for its basis a true spirit of scientific inquiry. How miserable must that life be which conducts an exacting, drudging, daily routine with only material reward in view. Few are the practitioners who have this sordid view; we can be as sure medicine would soon be forsaken if this viewpoint alone were considered. Hence in the laboratory of the first two years must be aroused and fostered the stimulus for lifework.

The final years should be clinical years, and the last should be in a hospital. The medical school that allows its students to think such opportunity is not due them is most unfair to them. As our schools are now constituted, most of them cannot give such requirements. The students should know, however, such requirement is necessary. What has been said regarding the preliminary college education applies equally forcefully to the hospital training. He is thrice armed who enters the arena thus equipped. Medical schools that cannot give such education are cruelly unkind and unjust to the students, by having them think it is not essential. Medical colleges that pass off a hospital training for one that is not truly such, fake their students. The student who pays well for his training has the right to demand such as to fit him for immediate action.

It is not the fault of the medical school alone that he can not get it. The public that cries out when there is mistake in diagnosis, fault in treatment, and that shakes its head at the deficient education of our students, must share the blame with the medical school. The public

admits that its individual members may at any moment almost be at the mercy of a half-educated physician. It is not necessary to recount, for it is well known, how on land or sea, by day or night, some event may arise in an individual life, the care of which may mean life or death. Even with this knowledge they withhold means to relieve themselves. They admit the necessity of a hospital training. But they, and particularly the public in control of hospitals not used for teaching, say each medical college should have its teaching hospital. They do not appreciate that to give an education which involves a hospital course would require an expenditure of \$500 a year for four years by each student. It has been estimated that the cost of maintaining a plant and paying salaries sufficiently large to accommodate 600 students would require the above outlay by each student. Unfortunately, it is impossible to expect students to pay such figures, as it would render entrance into the profession almost prohibitive. It is manifestly impossible, as medical schools are constituted now, to educate all the students of the land properly. Hospital training can not be given except by a few favored institutions, because the doors of hospitals are closed either by the governing body of the hospital or by the teachers in the medical schools.

We believe, personally, if a decree should be issued that no medical school, including its hospital, should exist except on the fees derived from students, but little hardship would follow. The lessened supply of students would increase the demands on the practitioner, so that larger returns would follow. The poor student would sacrifice and strive to get a degree, knowing then he had a good asset. A diminution in number and an increase in quality is demanded alike by the public and the profession. Such diminution in number would mean that the student would get back his investment quicker and in larger amount than at present, hence good men would be attracted. If we could abolish sentiment for sense and educate accordingly, there might be betterment all around. As it is now, medical students receive part of their education through the bounty of the State or the charity of the public, as such education can only be given in endowed institutions. The public is taxed so that the prospective physician can make a living. Is it right that it should be? Perhaps a mechanic should demand such right to make his son a good workman. We must all admit it is the duty of the State to educate the youth, so that good citizenship is maintained; we can question whether the State should educate the members to obtain a livelihood.

With the same indifference that the public views an epidemic's march they allow hospitals that are engaged in teaching to suffer for the want of funds. Moreover, they close their doors to the advent of teaching in the hospitals under their control. We must admit, those who do not appreciate the true function of a hospital have some ground for their contention. Ruled by sentiment chiefly, unfortunately an impracticable master, they sympathize with the patient, who still harbors the belief of old, that the medical student is one of a class that prowls about not unlike harpies. The public does not realize the difference in the student of today and the student of tradition. We cannot hold to account the governing body of the hospital, which has the point of view that it is harmful to a sick person to have him under the surveillance of an alleged student rabble. We must admit some patients become alarmed, particularly in institutions where they know they will have the sympathy of the governing body. An analysis of motive will show that the usual patient who will not allow a judicious amount of clinical demonstration when the sense of delicacy is not offended, is truly selfish, in that there is prevented that increase of knowledge and development of skill whereby suffering of others may be alleviated. A little encouragement from the officials would allay alarm on the part of the patient. The desire to help others is infectious, and when one yields in a ward, others vie in the work.

The truth of the matter is that in hospitals in which teaching is carried on, rarely, if ever, do the patients complain. Indeed, it is the experience of those teaching institutions that judiciously conducted instruction is appreciated by the patient. In one hospital we might name, most of the inmates are pay patients, giving \$7 a week willingly, because they know they are buying the service of the best practitioners in the land—the teachers of medicine—which service they could not get at tenfold the figure. The fact that teaching hospitals are over-crowded, not by the poor alone, but by people independent of charity, shows that clinical instruction is not a bugbear. If the governing boards would know that while a few patients might be alarmed, on the whole most of them would be gratified by the attention paid them, and their sense of rectitude and manliness appealed to by the satisfaction that they are doing some good in enlightening students, so that others could be relieved; that their administration would be stimulated to do work beyond criticism; that the nurses would be aroused to better activity while under the observation of those not connected with the hospital; that the internes would do their very

best to have most complete studies of the case, and finally, that the chief in attendance would be compelled to do his best at the risk of his reputation, they, would gladly open their doors, even to the discomfort of the few, but to the advantage of the many. In short, the hospital should have teaching not to oblige the medical school, but for its own survival and regeneration. The benefits the student derives by the object lesson of an orderly hospital cannot be estimated. Will not every member of a hospital board admit that his own character, his own sympathies, have been benefited by his connection with the hospital, even though, perhaps, he has not the advantage of an impressionable age? Can he not see, therefore, how the youthful student can not lightly toss aside this responsibility, nor even hide it by putting the onus of medical education on the teaching hospital. Every dollar endowing a nonteaching hospital robs the teaching hospital which is engaged in this larger duty.

It is true a class which is compelled to have hospital attention may not sympathize with this feeling. How can we obtain the confidence of this class? Let us organize such association of prominent people in our teaching centers who will agree to have any operation, any feature of disease witnessed by medical students, at the judgment of their attending physician. It would be well if individuals of such an organization would agree, first to undergo hospital treatment; second, to be the object of observation by students; third, to have an autopsy performed in case of untimely end. We feel sure that it would be wholesome individually and publicly if each would agree to ward treatment. Such association would rob hospitals of their terror and teaching of its dread. No one can deny that on the whole the public would be benefited from whatsoever point of view we look at it. Indeed, the public ought to learn that disease is an enemy to themselves and their country. Just as we make sacrifices in time of national warfare, so we should be willing to make sacrifices in the daily battle for life. Just as aristocrat and plebeian and tenant, fight side by side in the former, so they should array in solid phalanx in the latter.

But there are hospitals willing to admit students, and yet the privilege is not availed of. This arises because the teaching force of the medical college is not willing to sink its personality and allow the student to go wheresoever he will for his instruction. Courage and some sacrifice is required perhaps. But, when one thinks of the mighty opportunity and the frightful waste, it is saddening. Every hospital should be a school. The fourth year should be so arranged

that the student could avail himself of the advantages of hospitals in the immediate vicinity. Let each teaching body have the student understand what he must see and do, and true student will see it at the best place and with the best men. He must be accountable, of course, with a rigidity that means the exact acquirement of knowledge. To this end the first two years could be well spent in the properly equipped laboratory university, whether in town or country, the third in the authorized hospital of the school, the fourth in extramural hospital work.

Is it not anomalous that the hospital boards give to the nurses who are to act as aids to the physician the highest opportunities, and yet deny it to those who are to give orders to the nurses? This, of course, arises because training schools are the product of modern thought and have not been trammled by tradition.

But all this talk of the primary education avails but little if we do not see to it ourselves that education is continuous; that from the day of our graduation, forward, we do naught but toil, toil, toil. It should go without saying, as a mere business proposition, that unless we unceasingly labor but little of the fruits do we pluck. It is demonstrated in a practical manner, for when we look about us and find the methods of those of our brethren whose labors are not in vain each one bears the scent of midnight oil.

The development of postgraduate schools, the growth of libraries, the groans of the printing press, the enthusiasm of medical societies, all testify to the spirit of persistent self-education that is abroad. It is not for me to urge again the importance of each of us taking from time to time months for study and reflection. Every active doctor should have his sabbatical year. We dare say, extended observations would uphold that in income a gain is one hundredfold for each dollar invested in educational outings, and for every hour thus employed, ten is added to life. To finance a medical man from first to last successfully, we dare say, spend all net earnings of the first five years on self-education; after ten years, 10 per cent. of the annual net earnings for an assistant, continuing a 25 per cent. investment for years. Health, happiness, increased usefulness to the community, a success, which never comes from eccentricity, equal to doubling capital every five years, would follow.

In the course of our work it is necessary for us to halt from time to time and review. Not alone must our mental storehouse be swept out and refurnished, but we must constantly "jack up," if the term

is permissible, our mental and moral machinery. There are few of us who will not find as our days grow fuller an unconscious tendency to slight our work, to become slipshod, to hurry over matters. It is partly an evidence of overwork. The postgraduate school is the salvation. No obstacle can withstand the continuity of drill, which the earnest of us keep in action. If, to continue the imposition, asked what element of character is perhaps lacking to the greatest detriment to the profession and public, we possibly, one and all, would say courage. This is seen in the hesitancy which members of the profession show in giving an opinion, in advising an operation, and in asking for an autopsy. How much confidence is destroyed by the want of free, frank avowal of the physician that he does not know on the one hand, or of clear, precise statement of his judgment concerning a case on the other! The greatest success in life is confidence. How many lives are lost by the worker in internal medicine not advising early and unequivocally an operation for fear he might be wrong in his diagnosis! And how many more are lost because the surgeon lacks courage to do, either because he fears the patient may die and his record be marred, or because he may operate when it is not necessary! We must admit we have had some operations done when they were not required, but let it be said to the credit of modern surgery, we have never seen an operation of such character performed by the right man that did any harm to the patient. On the other hand, the resort to operative procedures early, and in cases that even yet are not considered of surgical relief, has saved lives and lessened suffering to a degree that far overballances the now and then futile measure. It may be assumed, without contradiction, that every case of bad appendicitis that happens to get well without surgical relief has in its wake three to five that die for the want of an operation. In other words, the pernicious influence of a surgical case that recovers without operation is evident in creating the hope that other cases demanding operation might get well without it.

And the man who does not want an autopsy—not only the centers of courage need stimulation, but too often the entire medical storehouse needs refitting. Something, best known to the physician himself, we trust, is lacking in the one who treats an obscure case for a day, six days, six weeks, and then does not want an autopsy. If true to himself, true to the demands of his profession, courage will not fail him. In our mental and physical round-up, we must see to it that courage is given a new backbone from time to time.

But, fellow-members of the Association, not alone as members of this organization may we indulge in congratulation, but as members of a profession whose limitation knows no bounds, we may join in felicitation. Neither language, nor creed, nor country, fetters our profession's munificent sway. The thoughts of Ehrlich, in Frankfurt; of our own Welch of Councilman, of Kitasato, in Japan, are correlated. The knife of Mayo in America, of Robson in London, of Kocher in Berne contributes to the relief of suffering in far Cathay. The founts of Lister's genius and Pasteur's divine inspiration bring countless blessings to England, to India, to France and to Africa. What a stimulus it is to realize that, however small the contribution of the humblest of us may be, its impulse will be felt in climes near and far and ages present and remote! What awe cannot but overtake us when we consider each heart throb we study entwines us to Harvey of two centuries; with every percussion tone reverberates the sound of Leannec's voice of a century; with each vaccine inoculation, the simple observation and reasoning of Jenner stimulate our question and deductions!

We rejoice together and cherish our history, by the warp and woof of which we are woven to the past. What heritage for us and our children! Dead must be the soul that wearies of communion with the spirits of the past; deep must be its slumber on which palls the thought of centuries; lethargic its activities that are aroused not by the deeds of heroic men! "Honor and fortune exist to him who always recognizes the neighborhood of the great, always feels himself in the presence of high causes." We worship together our science, devotion to which brings forth character, smothers egotism, levels pretension, drives out solitude, develops such loftiness of thought which can see that "against all appearances the nature of things works for truth and right forever." Of our art, let us see to it that when the final summons comes it can be said of us, "Greater love has no man than this, that a man lay down his life for his friends."

THE ANATOMY AND PHYSIOLOGY OF THE LARYNGEAL NERVES.

By Dr. Onodi.

Onodi's recently issued book on this subject is, the writer thinks, one of the most important contributions yet made to the literature of this always interesting study.

Professor Onodi has been one of the most active researchers in

this field and gives here the results of his own experiments and the conclusions he thinks should be drawn from them.

He concludes a valuable chapter on the abduction of the vocal cords present in partial degeneration of the recurrent nerve, with the description of an illustrative case in which he dissected the strands of fibres going to the various muscles and in which he could determine that:

"First of all, the abductors of the nerve degenerate; this stands in agreement with the experimental facts already related; then comes the nerve going to the thyroarytenoid muscle, an observation which corresponds to the clinical experience that paralysis of the internal thyroarytenoid often follows paralysis of the abductors; the latest to degenerate are the nerves to the abductors, namely, the lateral cricoarytenoid, the transverse arytenoid, and the cricothyroid, which explains the median position of the cords, because these muscles alone are in a position to fix the vocal cord in the middle line and to bring about movements of abduction."

The author has also recorded a number of new and very interesting observations on the share the sympathetic nerve takes in the laryngeal economy and altogether has produced a book which will be read with care and profit by all progressive rhinologists.—*Brit. Med. Journ.*, Jan. 16, 1904.

HAY FEVER.

Henderson (*Canadian Pract. and Rev.*) gives a resume of some experiments of Dr. Dunbar, a German professor in the etiology of hay fever.

Dunbar's conclusions, after exhaustive study, are that it is caused by the pollen of grasses. He further claims that it is not by mechanical means or as an irritant that the pollen acts, but by a process of general poisoning. When the pollen is brought into water tears, nasal secretion, blood serum or physiological saline, the outer coat is ruptured and the irritant poison set free.

He was also able to isolate the active principle of the pollen that produced the symptoms of hay fever in predisposed persons at any period of the year, but affecting normal individuals. Rabbits have been injected with this principal and a serum obtained that has a marked effect upon the disease as an antitoxin. The subject is still under investigation.

Abstracts.

A Study of a Case of Lateral Curvature of the Spine Treatment by Operation.

Michael Hoke, in the American Journal of Orthopaedic Surgery, November, presents a case of very severe deformity from lateral curvature and the subsequent operation for correction.

The patient was a young woman with an S-shaped curvature of the spine throughout its whole length, with a back, that, to the left of the spine, was sunken in from the fourth rib down, and to the right of the spine, showed a prominence extending down from the fourth rib. The costal margin in front was prominent and the chest wall beneath the right axilla flat. The tendency to twist around the spine to the right opposed her effort to stand straight.

For several months exercises were given daily to render the spine as flexible as possible and finally operation decided upon. The fifth, sixth, seventh and eighth ribs of the left side were selected for the first operation because they corresponded to the deepest sunken area in front of and just below the shoulder blade.

After a desired segment of each rib had been shelled out of its periosteum, a difficult task without puncturing the pleura, strips of gauze were passed under the ribs which were then divided by bone forceps between the gauze strips. A small piece was cut off the fragment distal to the spine, an assistant meanwhile lifting the cut ends by means of the gauze strips to avoid tearing of the pleura by the cut ends moving with the respiratory efforts. Notches were then cut in the upper and lower border of each fragment, and the distal fragment being lapped over the fragment nearest the spine, the were securely wired by silver wire catching in the notches. The periosteum was next stitched back as far as was possible, the wound properly closed and the skin sewed up with a subcutaneous suture. A plaster of paris jacket was then applied.

The wound healed promptly and in about ten (10) weeks the patient returned for the second operation, the remaining ribs being divided in similar manner. Previous to this operation a plaster cast of the back was made with the patient bending forward, and after the hump on the right side had been cut away and the depression on the left filled up a cast was made from this curved reproduction. After the operation

and while the patient was still under aether, she was laid down in this and securely strapped to it, a plaster jacket being applied around this and the body. This acted as a mold for the broken ribs.

The patient, truly a brave woman, also recovered from this operation and in about four (4) months came back for another when she had the twelfth rib fractured in one place, the eleventh in two places, the tenth in three places, the ninth in three places, the eighth in three and the seventh in two, all of them being of the greenstick variety. The sites of these fractures were external to those done at the previous operations.

The pleura was punctured once during this last operation and a little air sucked in, but this was stopped by folding some tissue over the rib and stitching it there.

A plaster of paris jacket was then applied, correcting the deformity as far as possible.

The result of these operations so far show that while the spine is not yet straight it is straighter than it was, the body outline is far more symmetrical and the posture of the upper extremities is vastly nearer to the normal. When the patient lies prone the spine is straight.

When standing with a light jacket on, very little deformity is perceptible. The body is very flexible now, and so can be improved by jackets put on with the thorax under the proper pressure conditions.

Jackets must be applied until the bone union in the ribs is perfectly firm or relapse will occur.

IN THE TREATMENT OF THE DISORDERS OF SPRING AND SUMMER.

"The hygienic condition of the house and vicinity must be made perfect."

This can best be done by the administration of Saline Laxative to "clean out," and the W-A Intestinal Antiseptic to "clean up" and "keep clean." If elimination is below par, give Calcalith, one tablet crushed, followed by a full glass of water four times daily. This will remove the "dirt from the corners," and leave the premises in the best possible sanitary condition.

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Editorial.



JNO. C. LeGRANDE, M. D.,.....Editor and Prop.

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Report of Secretary.

Dr. George H. Simmons, Secretary of the American Medical Association, submitted the following report at the recent meeting of the Association at Atlantic City, which was published in the Journal of the American Medical Association, June 11:

MEMBERSHIP IN THE AMERICAN MEDICAL ASSOCIATION

The membership on the date of my last report, May, 1903, was 13,545. During the year there have been added 2,413, and 919 have been dropped: 188 on account of death, 111 not eligible, 278 for non-payment of dues, 315 resigned, many of these on account of old age, and 27 were not found, leaving a net gain of 1,494. This makes the total membership on May 1, 1904, 15,039. Of the 2,413 names added to our membership list, 411 were new members, and 2,002 were originally subscribers to The Journal, and finally transferred to the membership list.

Places of Meeting, Presidents, Vice-Presidents and Orators of the American Medical Association for the Past Fifteen Years.

Year.	President.	1st Vice President.	2d Vice President.	3d Vice President.	4th Vice President.	ORATORS.		
						Medicine.	Surgery.	State Medicine
Nashville, 1890.	E. M. Moore, New York.	J. W. Jackson, Missouri.	H. H. Kimball, Minnesota.	J. H. Warren, Massachusetts.	T. B. Evans, Maryland.	N. S. Davis, Illinois.	H. McGuire, Virginia.	A. L. Carroll, New York.
Washington, 1891.	W. T. Briggs, Tennessee.	O. A. Lindsley, Connecticut.	R. C. Moore, Nebraska.	C. H. Wyman, Michigan.	L. P. Gibson, Arkansas.	E. L. Shurly, Michigan.	J. M. Mathews, Kentucky.	W. L. Schenck, Kansas.
Detroit, 1892.	H. O. Marcy, Massachusetts.	Willis P. King, Missouri.	Henry Palmer, Wisconsin.	W. E. B. Davis, Alabama.	W. E. Taylor, California.	J. S. Cain, Tennessee.	J. B. Hamilton, Dist. Col.	O. A. Lindsley, Connecticut.
Milwaukee, 1893.	H. McGuire, Virginia.	H. O. Walker, Michigan.	H. Brown, Kentucky.	H. Jones, Vermont.	Jesse Hawes, Colorado.	H. A. Hare, Pennsylvania.	H. H. Mudd, Missouri.	W. Wyman, Dist. Col.
San Francisco, 1894.	Jas. F. Hibberd, Indiana.	J. A. Wyeth, New York.	Isaac F. Love, Missouri.	T. Murrell, Arkansas.	U. O. B. Wingate, Wisconsin.	C. H. Hughes, Missouri.	E. LaPace, Pennsylvania.	Geo. H. Rohe, Maryland.
Baltimore, 1895.	D. McLean, Michigan.	S. Loving, Ohio.	Wm. Watson, Iowa.	W. B. Rogers, Tennessee.	F. S. Bascom, Utah.	Wm E. Quine, Illinois.	C. A. Wheaton, Minnesota.	H. D. Holton, Vermont.
Atlanta, 1896.	R. B. Cole, California.	J. J. Chisolm, Maryland.	J. O. LeGrande, Alabama.	A. P. Clarke, Massachusetts.	T. P. Satterwhite, Ky.	William Osler, Maryland.	Nicholas Senn, Illinois.	Geo. H. Rohe, Maryland.
Philadelphia, 1897.	Nicholas Senn, Illinois.	G. M. Sternberg, Dist. Col.	Edm. Souchon, Louisiana.	J. D. Thomas, Pennsylvania.	W. F. Westmoreland, Ga.	August Flint, New York.	W. W. Keen, Pennsylvania.	J. B. Hamilton, Illinois.
Denver, 1898.	G. M. Sternberg, Dist. Col.	J. M. Mathews, Kentucky.	J. L. Thompson, Indiana.	F. H. Wiggin, New York.	T. J. Happel, Tennessee.	J. H. Musser, Pennsylvania.	J. B. Murphy, Illinois.	
Columbus, 1899.	J. M. Mathews, Kentucky.	W. W. Keen, Pennsylvania.	J. W. Graham, Colorado.	H. A. West, Texas.	J. E. Minney, Kansas.	J. C. Wilson, Pennsylvania.	F. W. McKee, Georgia.	D. R. Brower, Illinois.
Atlantic City, 1900.	C. A. Wheaton, Pennsylvania.	E. D. Ferguson, New York.	E. D. Ferguson, New York.	J. M. Allen, Missouri.	W. D. Middleton, Iowa.	J. A. Witherspoon, Tennessee.	W. L. Rodman, Michigan.	V. C. Vaughan, Michigan.
St. Paul, 1901.	C. A. L. Reed, Ohio.	A. W. Calhoun, Georgia.	A. A. Woodhull, Colorado.	Philip Marvel, New Jersey.	Wm. E. Quine, Illinois.	N. S. Davis, Jr., Illinois.	J. A. Wyeth, New York.	Geo. M. Kober, Dist. Col.
Saratoga Sp'gs, 1902.	Jno. A. Wyeth, New York.	A. Garcelon, Maine.	A. J. Stone, Minnesota.	A. F. Jones, Nebraska.	Jas. A. Dibrell, Arkansas.	Frank Billings, Illinois.	H. M. Sherman, California.	J. M. Emmert, Iowa.
New Orleans, 1903.	Frank Billings, Illinois.	J. A. Witherspoon, Tennessee.	G. F. Comstock, New York.	C. R. Holmes, Ohio.	Jas. H. Dunn, Minnesota.	J. M. Anders, Pennsylvania.	A. F. Jones, Nebraska.	Wm. H. Welch, Maryland.
Atlantic City, 1904.	J. H. Musser, Pennsylvania.	G. O. Savage, Tennessee.	Isadore Dyer, Louisiana.	C. Lester Hall, Missouri.	G. F. Jenkins, Iowa.	George Dock, Michigan.	W. J. Mayo, Minnesota.	H. M. Biggs, New York.

MEMBERSHIP IN STATE ASSOCIATIONS.

The number of members in the various state associations, except Nevada, Oregon and Wyoming, have been secured from the secretaries. Omitting these three states, the total membership is 44,012. We can estimate the three states not given as having a membership of 350, making a grand total of 44,362. I give below the name of each state, with the number of members:

Alabama, 1,295; Arizona, 95; Arkansas, 711; California, 1,505; Colorado, 518; Connecticut, 605; Delaware, 134; District of Columbia, 447; Florida, 236; Georgia, 650; Idaho, 75; Illinois, 3,931; Indian Territory, 168; Indiana, 1,947; Iowa, 1,511; Kansas, 562; Kentucky, 1,361; Louisiana, 819; Maine, 461; Maryland, 715; Massachusetts, 2,681; Michigan, 1,672; Minnesota, 863; Mississippi, 606; Missouri, 1,400; Montana, 60; Nebraska, 658; New Hampshire, 350; New Jersey, 1,122; New Mexico, 63; New York, 1,704; Carolina, 800; North Dakota, 115; Ohio, 2,451; Oklahoma, 163; Pennsylvania, 3,799; Rhode Island, 274; South Carolina, 207; South Dakota, 160; Tennessee, 1004; Texas, 2,321; Utah, 89; Vermont, 403; Virginia, 1,096; Washington, 420; West Virginia, 600; Wisconsin, 1,185. Total, 44,012.

PHYSICIANS IN THE DEPARTMENT OF THE INTERIOR.

At the last session the Secretary was instructed to correspond with the Department of the Interior and to advise the House of Delegates at the annual session in regard to according this service specific recognition. The correspondence has been with the Hon. Thomas Ryan, First Assistant Secretary, Department of the Interior, and he has kindly supplied us with a list of the names of the physicians connected with the various branches of the Department.

The number of physicians connected directly and indirectly with the Department of the Interior is as follows:

Board of Pension Appeals, 5; Indian Agencies, 73; Indian Schools, 52; Government Hospital for the Insane, 13, and Freedman's Hospital, 3; Bureau of Pensions, 86; total 232.

Of these 107 reside in Washington, and consequently can obtain membership in the Medical Association of the District of Columbia. Those connected with the Indian Agencies and with Indian Schools (125) are the only ones that may have difficulty in obtaining membership in an affiliated society. In glancing over the list containing these names, I find that probably three-fourth are located where membership in an affiliated society would be easily obtainable. Some of the physicians are sectarians and probably would not be considered eligible. Nevertheless, the existing conditions are such that there are quite a number, probably between 25 and 50, who could not without great inconvenience obtain membership in an affiliated society, and conse-

quently, under present arrangements, are debarred from membership in the American Medical Association.

I am accompanying my report with a table which gives the names of the presidents, vice-presidents and orators for the past fifteen years for your information.

Dr. A. H. Ohmann-Dumesnil, under date of June 1, 1904, writes as follows:

There are numerous occasions when a resort to a hypnotic becomes a matter of imperative necessity, and in the choice of such remedy several points of interest present themselves for consideration by the conscientious prescriber. Such a preparation must be safe, certain and prompt. In many cases it is demanded that it must also relieve pain.

Believing that a haphazard selection of a hypnotic with which to meet a multitude of conditions causing insomnia is no more admissible than random prescribing for any other serious pathologic state, I have made a somewhat careful study of the various preparations of this kind in the market.

A consideration of the formula presented by the Tilden Company under the name Narkogen convinced me that it should perfectly meet the various demands upon a perfect hypnotic described above, and a trial of this remedy further convinced me that Narkogen is a step in the direction of definite therapeutics for conditions which need definite diagnosis and treatment as much as any others.

Narkogen, consisting as it does of

Chloral Hydrate,.....	grs. x
Potass. Bromide, ...	grs. x
Hyoscine Hydrobromate,...	grs. 1-200
Narkine (Tilden's).....	grs. ss

to each fluid dram, will, of course, have a wider range of usefulness than as a mere hypnotic. It is decidedly anodyne, relieving pain promptly. It exerts a prompt anti-spasmodic action and is unsurpassed as a nerve sedative. It is antiphlogistic, exercising a powerful influence upon both the vaso-motor and general circulation. Its various component parts are synergistic and each enhances the action of the other, all tending in the direction of quiet nerves, quiet circulation, oblivion to pain and mental distress and the allaying of nervous erethism.

For the benefit of readers who do not know what Narkine is, it is a very superior opium preparation from which all deleterious qualities have been eliminated. It gives a dominant tone to this rational and effective preparation which will amply satisfy any physician who will give it a trial.

Miscellaneous Notes.

When an internal mucous astringent is indicated, in such cases as Cholera Infantum, etc., Kennedy's dark pinus canadensis should be given in an alkaline medium.

OVARIAN NEURALGIA.

R Satyria..... 8 ounces
Ferri et Quinina Citrus 2 drachms
M. Sig. Teaspoonful every three hours.

SATYRIA VERY EFFICIENT.

A. H. Connett, M. D., Great Bend, Kansas, says, "I have used Satyria in cystitic and prostatic troubles and find it very efficient."
August 2, 1903.

IRREGULAR MENSTRUATION AND TREATMENT.

E. C. Willey, M. D., Louisville, Ky.

Practitioners of medicine are consulted by no class of patients who display greater solicitude than those who have amenorrhea.

In the popular mind failure of the menses to appear is supposed to be due either to pregnancy or tuberculosis, and either may cause a degree of anxiety that is truly intense.

The term amenorrhea is used to mean the total absence of the menstrual discharge, or a marked deficiency in the quantity of the flow. Amenorrhea may be physiological or pathological. During pregnancy the absence of the menstrual discharge is, of course, physiological and demands no consideration in this article. When pathological, the causes of amenorrhea may be said in general to be due to the following:

(1) Taking cold, at or near the menstrual epoch. (2) Severe mental perturbation, as fright, sorrow, or great elation of spirit. (3) It may be symptomatic in several affections, as tuberculosis, anaemia, chlorosis, syphilis, typhoid fever, nephritis, pelvic peritonitis, and other morbid conditions. (4) Obesity. (5) Luxurious life, or overtaxing the nervous system. (6) Stenosis or atresia of the cervical canal, or imperfect development of the tubes, ovaries or uterus. (7) Vicarious menstruation may make the condition obscure, there being a discharge

at the regular monthly periods from the nose, lungs, bladder, stomach, nipple, or other part.

The treatment of amenorrhea must comprehend attention to general considerations, and special indications must be remembered in the various expressions of amenorrhea.

The treatment must, in a word, comprehend remedies and measures which are indicated by the etiological factors present in every case which comes up for treatment. When the amenorrhea is caused by having contracted cold, the patient should have a warm sitz bath, and hot applications should be applied to the abdomen and thighs. Often a hot vaginal injection will serve a most useful purpose, and a laxative, preferably a saline, will greatly aid in bringing on the flow.

It is well to bear in mind that Scott's Emulsion can be as readily taken in summer as in winter. Its value is in no way diminished by the change of temperature. Scott's Emulsion is perhaps the only cod liver oil preparation that can be used with success the year round.

SCOTT & BOWNE, Chemists. 409 Pearl St., New York



In amenorrhea, delay menstruation and dysmenorrhea. Ergoapiol (Smith) has acted in my hands in a most satisfactory manner in scanty menstruation, I found it particularly valuable, and I shall enter in detail about one of a series of cases of this character, later on in this article where this agent brought on a full menstruation and the general health of the patient began to improve at once. When mental perturbation is a factor in these cases it is manifestly the duty of the physician to have the environments of the patient made as quiet as possible, and anti-spasmodic or nerve sedatives should be added to the treatment.

When amenorrhea is associated with syphilis, the uric acid diathesis or morbid condition must receive correct treatment. My experience with Ergoapiol (Smith) is such that I regard it as an indispensable remedy in all expressions of amenorrhea along with proper remedies for any diseased condition associated in the causation of the affection. Of course those cases where the amenorrhea is due to atresia of the cervical canal, and to any other condition which is remedial only by surgical means, drugs will prove of no avail. The same can be said of instances in the amenorrhea due to a rudimentary state of the female organs of reproduction.

A lady some time ago brought her daughter to my office for treatment of amenorrhea. The girl was 18 years old and was visibly anaemic. She had an indifferent appetite and was more or less dispirited. She had enough menstrual flow each month to stain the napkin, but this was all that could be said. I had this patient to take Ergoapiol (Smith), one capsule after each meal, and on going to bed regularly for a month. At the next menstrual period the discharge was without pain and free, and the quantity and color was as natural as she ever had known her menstruation to be. She took Ergoapiol (Smith) in the same way another month, and then ceased to have any further trouble. Her color is good and her appetite is likewise excellent; she is full of spirit, and, in a word, well.

A lady aged 33 had scanty menstruation which had covered the period of a year. At no time in the year had her menstrual period been longer than eighteen hours, but generally twelve hours told the tale. Her menses were not scanty, but the color of the menstrual blood was pale, and this was attended with a disagreeable odor. This woman had no associated disease that most searching examination could bring out. Still she had steadily increased in flesh for the last two years, and to this I attributed the amenorrhea.

I had this patient to take systematic exercise and a dietary that was

rational, and to take Ergoapiol (Smith) with regularity, a capsule four times a day. After two months this woman ceased to take the remedy, her menstruation having become normal.

A girl 20 years old was sent to me by the matron of a boarding school. She enjoyed good health prior to entering the school, but for the past three months she had not menstruated, and was suffering constantly with vertigo and had attacks of hysteria. I attributed the aménorrhœa to change of conditions of life—that of an open life on a farm to that of a shut-in inactive life. Ergoapiol (Smith) was given after each meal for two weeks prior to the day of her usual menstruation. This brought her menses on fully. She has since had no further trouble in this way.

Mrs. A. P. L., aged 35. This lady suffered with frequent attacks of headache, had backaches nearly all the time, and suffered greatly with vertigo. She was the mother of three children, the youngest being six years old. For the past four years she had constantly had scanty menstruation and the blood was very pale. She rarely had the menstrual flow to continue longer than fifteen hours. I was satisfied that the vertigo and all her distress was due to insufficient menstrual flow, and I accordingly put her on Ergoapiol (Smith). She took it through the month, one capsule after each meal; but for a week before the expected period she took two capsules instead of one. She was greatly pleased this time to have a full and free menstruation. Acting on my advice, she took the capsule three times daily for two months, and this acted in a happy manner, and she has now passed an entire year and has not failed to menstruate freely.

My diagnosis was fully confirmed by this woman's health being good in every way since the establishment of menses on a basis of health.—The Southern Practitioner, July, 1902.

It has been shown that guinea pigs and other animals inoculated with the poison of tetanus, survive when treated at once with Antitetanic Serum. In France, Nocard observed 375 animals of various kinds, all of which had been wounded, accidentally or surgically, and subjected to tetanic infection. These animals were given Antitetanic Serum at once, before the disease had time to develop. As a result, not a single case of tetanus occurred among them. On the other hand, he noted 55 traumatized animals that had been exposed to tetanic infection, every one of which developed the disease,

In the August, 1899, number of *Medicine*, Prof. Geo. F. Butler, M. D., says: "Dr. Joseph Hughes, one of the most eminent and conservative veterinary surgeons in Chicago, has used the serum as a prophylactic in over 500 cases following wounds, both surgical and accidental." Not a single case of tetanus has developed, though Dr. Hughes has used the serum where by former experience he was justified in expecting the disease to manifest itself.

From this and similar reports it has been proposed to immediately inject Antitetanic Serum in every case of traumatism of a suspicious character, hoping in this manner to prevent the subsequent development of tetanus. The serum is harmless to man and may be given hypodermatically as the other serums. Nocard recommends that a first injection of ten cubic centimeters should be made as soon as possible after traumatism. A second injection should follow in from twelve to fifteen days.

It has been suggested to inject prophylactically all new-born infants in certain sections of Europe in which trismus neonatorum prevails.

In the *Therapeutic Gazette* for Feb. 15, 1903, the editor directs attention to the fact that "although tetanus is, comparatively speaking, a rare disease, it is sufficiently frequent and fatal to make an antitetanic serum a much sought for remedy." He also pointed out the fact that the failure of antitetanic serum depended "not upon the fact that it was possessed of no virtue, but rather because it was used too late to combat the disease." The same writer expressed the view that, "one fact stands out above all others, and that is, that thoroughly good results cannot be expected from antitetanic serum unless it be given in the very earliest stages of the infection. So true is this that experienced observers have insisted that its best results can be obtained only when it is administered immediately after exposure to infection, without waiting until the micro-organisms have had a chance to develop in the body and produce early symptoms of poisoning.

The editor of the *New York Medical Journal*, in the issue of March 26, 1904, remarks that, "the present drift of opinion seems to be to the effect that tetanus antitoxin while probably of considerable prophylactic efficacy, is of little use as a curative agent. At a meeting of the Paris Society of Surgery, according to the same editorial, M. Labbe expressed the view, that since the injection of antitetanic serum has been employed as a routine prophylactic measure, the disappearance of tetanus after surgical operations in horses was a prime fact in support of its preventive efficiency.

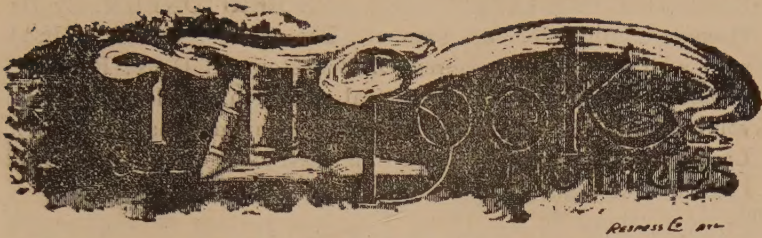
Furthermore, recent experience in the immediate topical employment of antitoxin in cases of toy-pistol injuries appears to support our trust in its prophylactic value.

Bazy (*Bulletins et Memoires de la Societe de Chirurgie de Paris*, 1896, N. S., xxii, 186, 191) had four cases of tetanus develop in his wards. From that period he applied preventive treatment to all cases of wounds admitted to his service. He made 21 preventive inoculations of 10 cubic centimeters each. None of these patients developed tetanus, although he says their wounds belong to that category which includes most cases of the disease.

Dr. Joseph McFarland, in the *Journal of the American Medical Association* for July 4, 1903, reports the results of a series of observations upon 800 horses which illustrate the value of antitetanic serum as a prophylactic agent. During a period of four years there had been a death rate of ten per cent. from tetanus, in spite of all precautions. A systematic immunization with antitetanic serum was then begun. Injections of 10 to 25 cc. of serum were given every three months. As a result the death rate from tetanus rapidly decreased, and in the second year had been reduced to less than 1 per cent. The author believes that the practical conclusions to be drawn from these observations may be applied to the human subject. He thinks that antitetanic serum should be given as a prophylactic measure in all cases of suspicious wounds that are likely to be followed by tetanus.

Experiments made on guinea pigs by the author demonstrated that the dried serum fully protects inoculated animals.

At the 29th annual meeting of the Mississippi Valley Medical Association, held at Memphis, Tenn., October 7, 8 and 9, 1903, Dr. S. C. Stanton, of Chicago, contributed a valuable statistical paper on "The Prophylaxis of Tetanus," (*Medical News*, Oct. 31, 1903, page 860). Among the various prophylactic measures recommended by the author were the open treatment of all wounds, however insignificant, in which, from the nature of surroundings, there was any risk of tetanus; the immediate use of antitetanic serum in all cases of Fourth of July wounds, wounds received in barnyards, gardens, or other places where tetanus bacillus was likely to be present, or tetanus infection to occur.



AMERICAN EDITION OF NOTHNAGEL'S PRACTICE.

TUBERCULOSIS AND ACUTE GENERAL MILIARY TUBERCULOSIS. By Dr. G. Cornet, of Berlin. Edited, with additions, by W. B. James' M. D., Prof. of the Practice of Medicine in the College of Physicians and surgeons (Columbia University), New York. Handsome octavo volume of 806 p. Philadelphia, New York, London: W. B. Saunders and Company, 1904. Cloth, \$5.00 net; Half Morocco, \$6.00 net.

This is the seventh volume to be issued in Saunders' American Edition of Nothnagel's Practice, and the remaining four volumes are in active preparation for early publication.

The American edition of Professor Cornet's exhaustive work appears at a time when the subject of tuberculosis has a peculiar claim upon the attention of mankind. Within a few years both professional and general public interest in the disease has taken enormous strides. In almost every civilized community societies for the prevention of tuberculosis are being organized, and these are composed not only of physicians but of laymen, while governments themselves are taking an active part in the movement. Under these circumstances, and at this time, the work is of interest to practitioners, for there is no other treatise which gives an equally clear and comprehensive view of this subject.

The article on Acute General Miliary Tuberculosis has been admirably written and gives a thoroughly clear understanding of this disease.

The importance of the Chemistry of the Tubercle Bacillus and its bearing upon Immunity have warranted a thorough treatment of this subject.

The work is complete and logically arranged, and the editor has made additions where necessary to bring it down to date.

DISEASES OF THE INTESTINES AND PERITONEUM. By Dr. Herman Nothnagle, of Vienna. The entire volume edited, with additions, by Humphrey D. Rolleston, M. D., F. R. C. P., Physician to St. George's Hospital, London, England. Octavo volume of 1032 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders and Company, 1904. Cloth, \$5.00 net; Half Morocco, \$6.00 net.

This new volume in Saunders' American edition of Nothnagle's Practice is the eighth issued, and appearing within two months after the publication of the volume Tuberculosis, gives evidence that the publishers intend completing the series at an early date. This, one of the most valuable volumes in the series, is by the famous clinician Dr. Hermann Nothnagle himself, and is as exhaustive as it is practical. The distinguished editor, Dr. Humphrey D. Rolleston, of London, England, has used his pen most profusely, almost every page giving generous evidence of his careful editing. The editorial additions include sections on Intestinal Sand, Sprus, Ulcerative Colitis, and Idiopathic Dilatation of the Colon. Appendicitis and Peritonitis have been given unusual space, treatment and diagnosis receiving exhaustive consideration. The section on Intussusception has been greatly enlarged by the additions of D'Arcy Power, of England, who has made this subject his own. There are 20 inserts of great merit.

OBSTETRIC AND GYNECOLOGIC NURSING.—Second Edition, Thoroughly Revised. By Edward P. Davis, A. M., M. D., Professor of Obstetrics in the Jefferson Medical College and in the Philadelphia Polyclinic. 12 mo volume of 402 pages, fully illustrated. Second edition, thoroughly revised. Philadelphia, New York, London: W. B. Saunders and Company, 1904. Polished Buckram, \$1.75 net.

The usefulness of this book to the nursing profession is manifest by the fact that a second edition has been called for. It is necessary for an obstetric nurse to possess some knowledge of natural pregnancy and of its consequent diseases; and asynecologic nursing is really a branch of surgical nursing, special training and instruction are required to meet the conditions arising. The book just fills the need, everything that the obstetric and gynecologic nurse should know being included. The second edition shows evidence of having been carefully revised throughout, and considerable matter has been added. It would be well if every trained nurse possessed a copy of this book, for it certainly is of inestimable value.

EPILEPSY AND ITS TREATMENT. By William P. Spratling, M. D., Superintendent of the Craig Colony for Epileptics at N. Y. Handsome octavo volume of 522 pages, illustrated. Philadelphia, New York, London: W. B. Saunders and Company, 1904. Cloth, \$4.00 net.

This work by Dr. Spratling is of unusual interest for many reasons: It is the first complete treatise on Epilepsy since the appearance of Echeverria's work published over 33 years ago, and represents the practical experience of Dr. Spratling as Superintendent of the Craig Colony for Epileptics at Sonyea, N. Y., during a period of ten years. The great progress made in the knowledge of Epilepsy and its Treatment during the past fifteen years certainly demand an accurate and careful work which would include these latest advancements. Dr. Spratling has given us all that could be desired. Of particular interest are the chapters on the Psychologic and Medicolegal Aspects. An entire section is devoted to the all-important seizure type—Status Epilepticus; and Treatment, general, educational, medical, and surgical, is discussed with wisdom, thought, and conservatism. The subject is bountifully illuminated by the citation of illustrative cases; and, indeed, for the entire work we have nothing but praise. General Practitioners, as well as those especially interested in Epilepsy, will find the book of great value.

A UNIQUE ACCIDENT.

By Alex. Rixa, M. D., New York.

H. C., about 40 years of age, weighing about 200 pounds, came home late in the night in a "festive condition." Inserting his key in the door lock, his foot slipped and he fell with his face, respectively his mouth, on the edge of the key, severing the tissues below the lower gum and the sublingual gland.

When I arrived at the house he was vomiting profusely. However, when the vomiting ceased for a while, I noticed blood oozing from behind the lower lip, intermixed with a yellowish, somewhat frothy liquid pouring out in gushes. I endeavored to stop the flow, but did not succeed owing to the repeated vomiting spells.

At last I succeeded to inject hypodermically a half a grain of morphine, in consequence of which a cessation of vomiting followed shortly.

After a careful examination of the injured parts, I concluded it could be but the sublingual gland which emits the secretions, and was not a little surprised at the enormous quantity, as to my knowledge, this gland is very small and weighs only one dram. I intended to put some stitches in the tear, but patient protested against it in his semi-intoxicated condition. I had to resort therefore to the application of strips of adhesive plaster to the surface of the lower lip, thus compressing the severed parts.

As a matter of fact, this procedure stopped the evacuation and I left patient in quite a comfortable condition.

The beneficial action of the morphine, however, was of short duration, as I was summoned again about two hours after, with the frightened remark that patient is suffocating.

When I arrived, I found patient hanging down his head from the bed, gasping for breath, as some food-masses could not pass through the mouth owing to the compressed chin. I tore off the bandage, and with the contents of the stomach the little gland commenced to flow with renewed vigor. By this time, the man having sobered somewhat after some arguments he permitted me to put in the necessary sutures.

Notwithstanding the internal administration of some stomachia the irritation continued, vomiting would not cease. I was compelled to inject hypodermically another dose of morphine, which after some minutes stopped that wretched retching.

The next day, however, as the effect of the morphine passed away, vomiting recurred.

Considering the fact that a simple alcoholic irritation of the stomach would yield to the prescribed treatment, I concluded that it could be but the swallowed secretions of the sublingual gland which caused this persistent irritation.

First, I considered a washing of the stomach, but as previously, I met with the opposition of patient.

As a matter of course, there was only an internal medication left for consideration. I decided therefore, on a simple innocuous antiseptic—glycozone—with which I had quite a satisfactory experience in several cases of ptomaine poisoning. I prescribed it in repeated tablespoonful doses with rapid and gratifying results.

Notwithstanding the liberal use of antiseptic washes and sprays, the wound in the mouth was healing but very slowly.—Reprinted from the Medical Summary, Jan. 1904.